THE ARCHITECT & BUILDING NEWS

PUBLISHED IN LONDON SINCE 1854

12 AUGUST 1954 · VOL 206 · No. 7 · ONE SHILLING WEEKLY

- NEW SHOP FOR DAVID GREIG, CANTERBURY
- LADY DANE CANNERY EXTENSION
- SANDLING PARK, KENT

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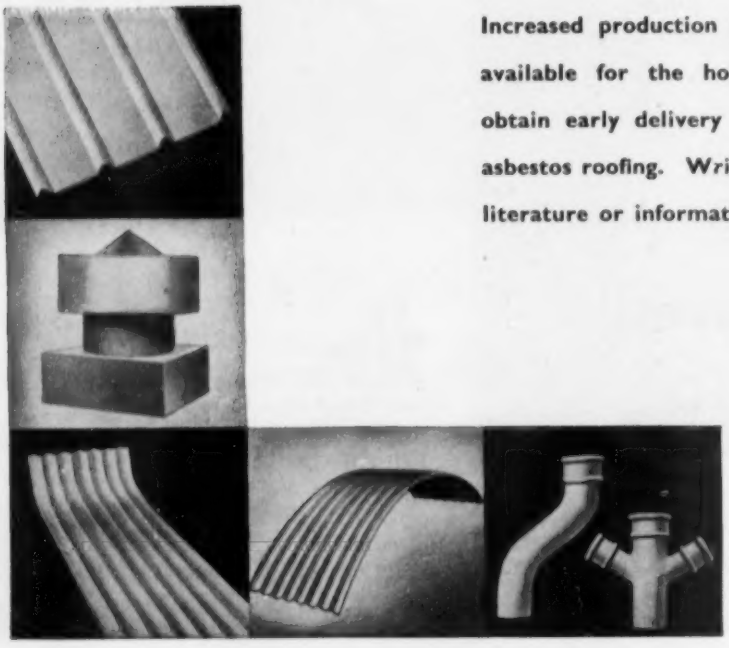

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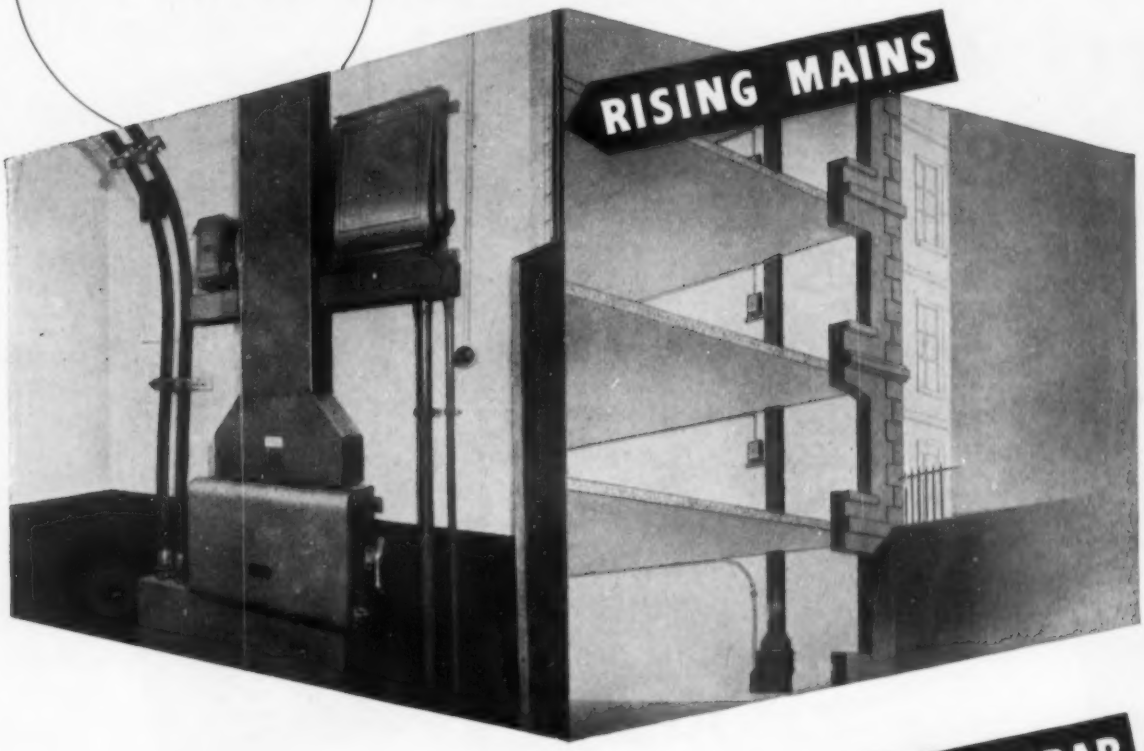

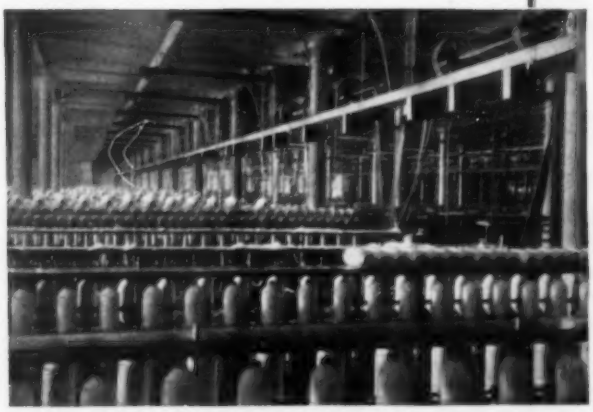

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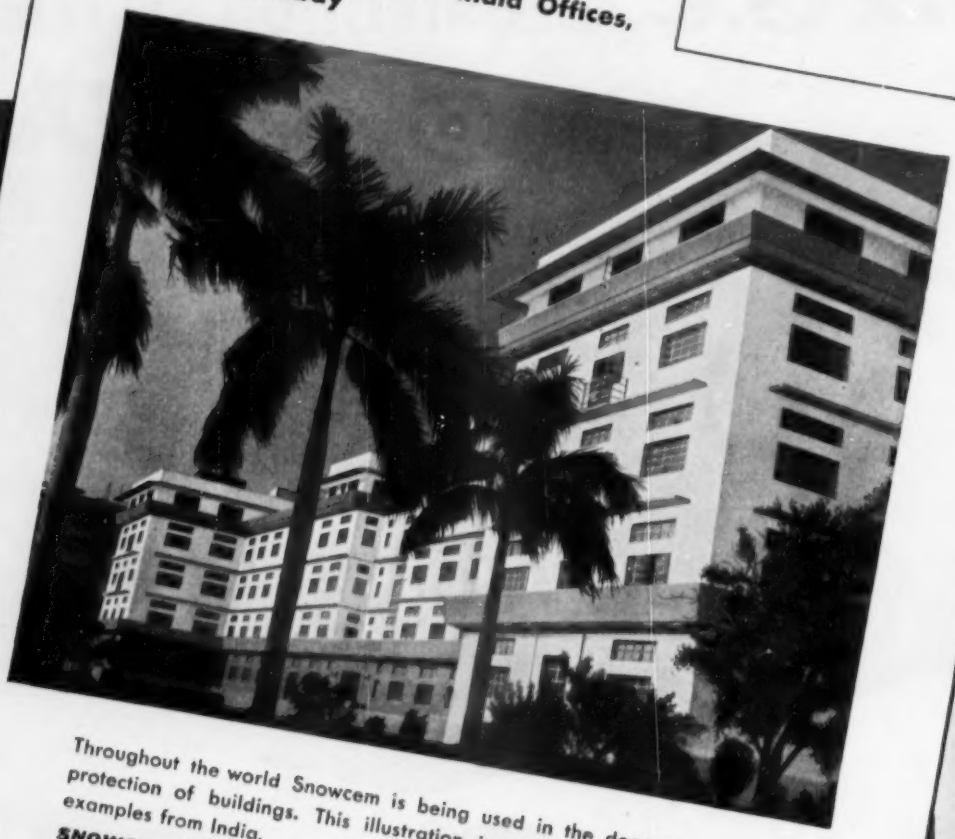

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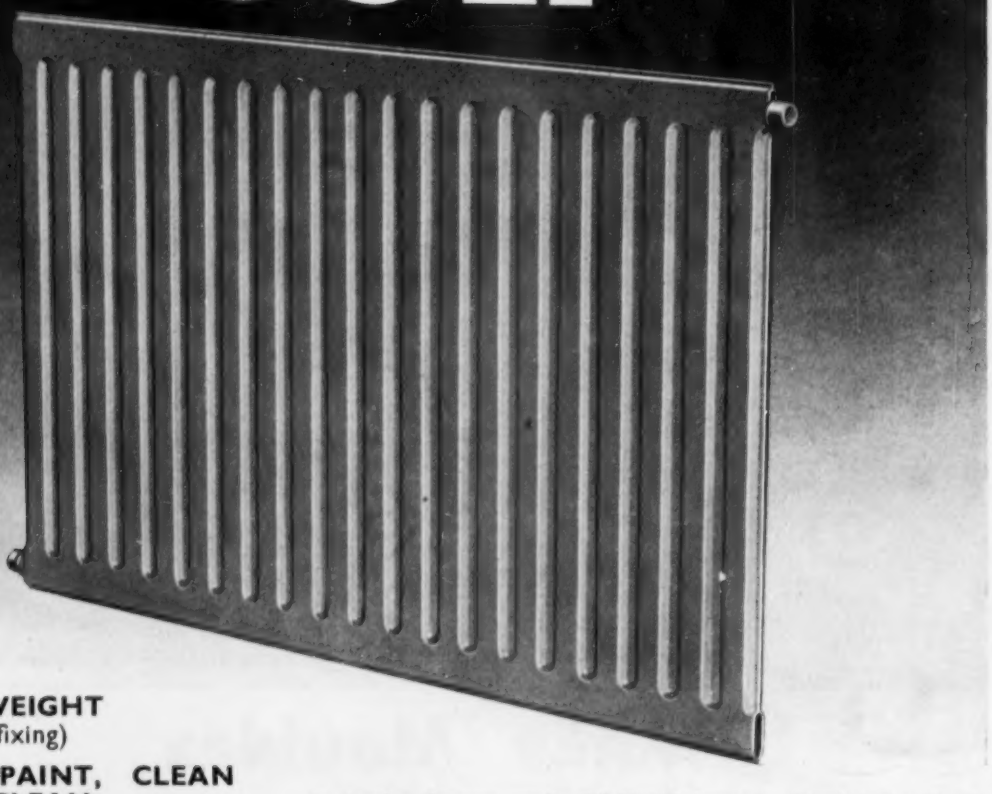

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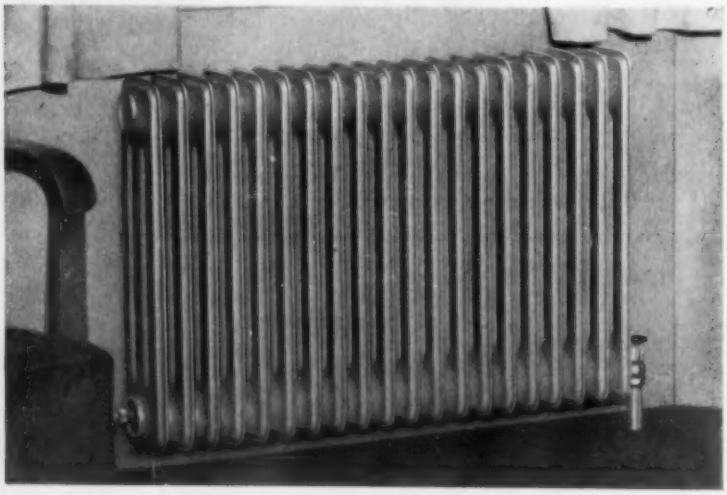

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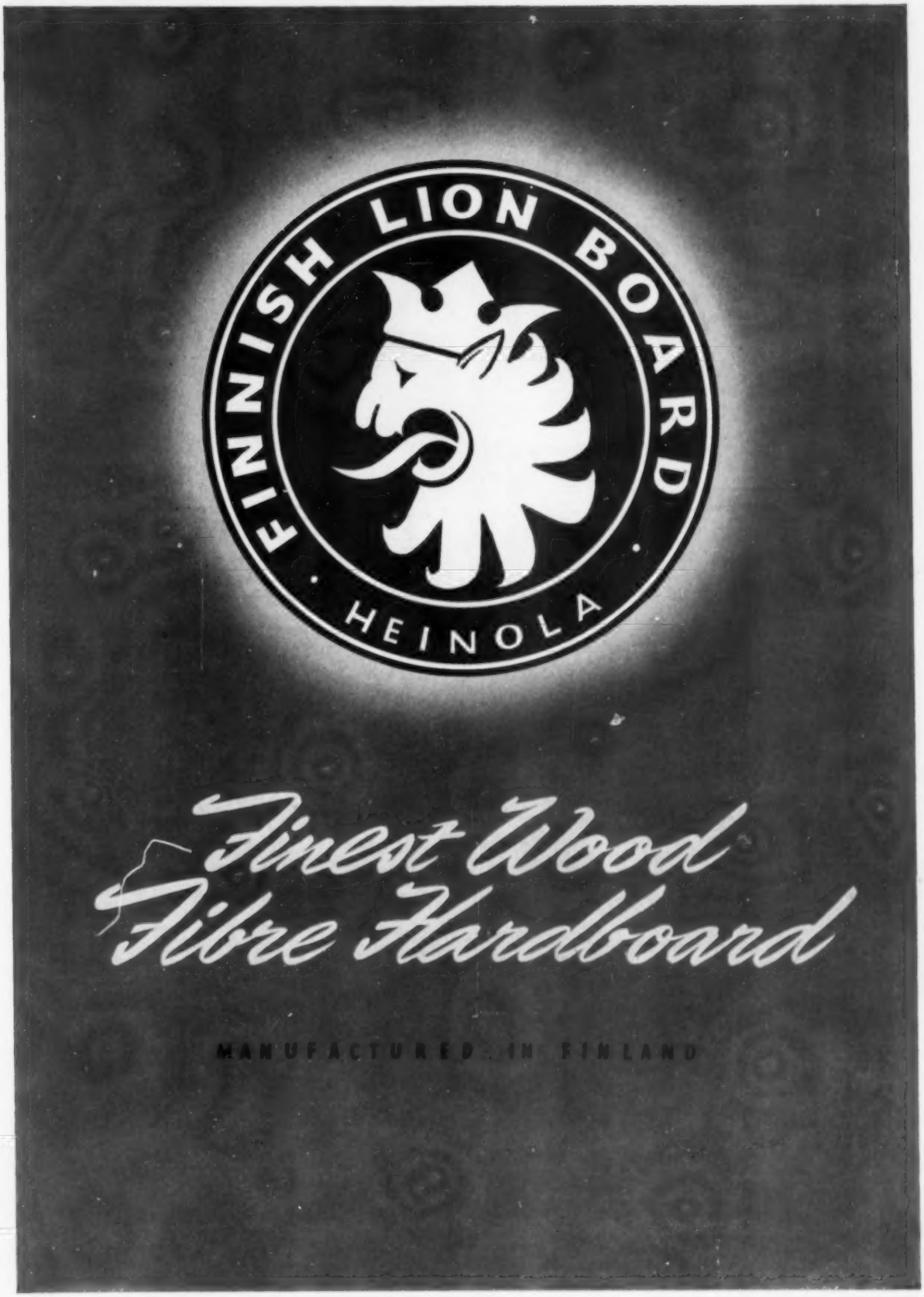
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Supplied only, supplied complete or fixed complete.
Deliveries from our nearest Works:— N. Staffs., S. Staffs., Lincolnshire, S. Wales, Bucks., or Sussex.

Description	Size	Weight
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Angle Strainer (Ext.) ..	6in. by 6in. by 9ft. 0in.	338 lbs.
Angle Strainer (Int.) ..	6in. by 6in. by 9ft. 0in.	338 lbs.
Intermediate Strainer ..	6in. by 6in. by 9ft. 0in.	338 lbs.
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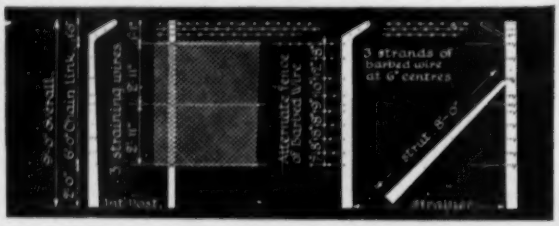
Straight posts are available from stock for 3'0", 3'6", 4'0", 4'6", 5'0" and 6'0" mesh. Also posts for wire fencing, guard tubes and rails, close and open boards, panels, etc. Please write or 'phone for particulars and prices.



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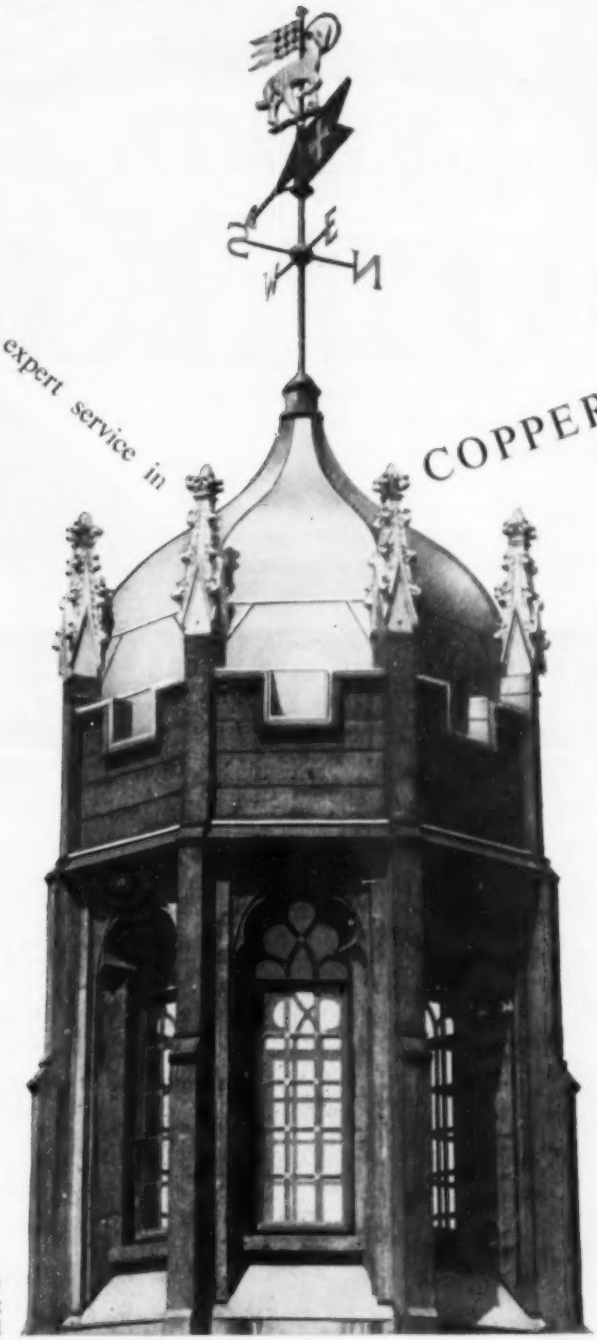

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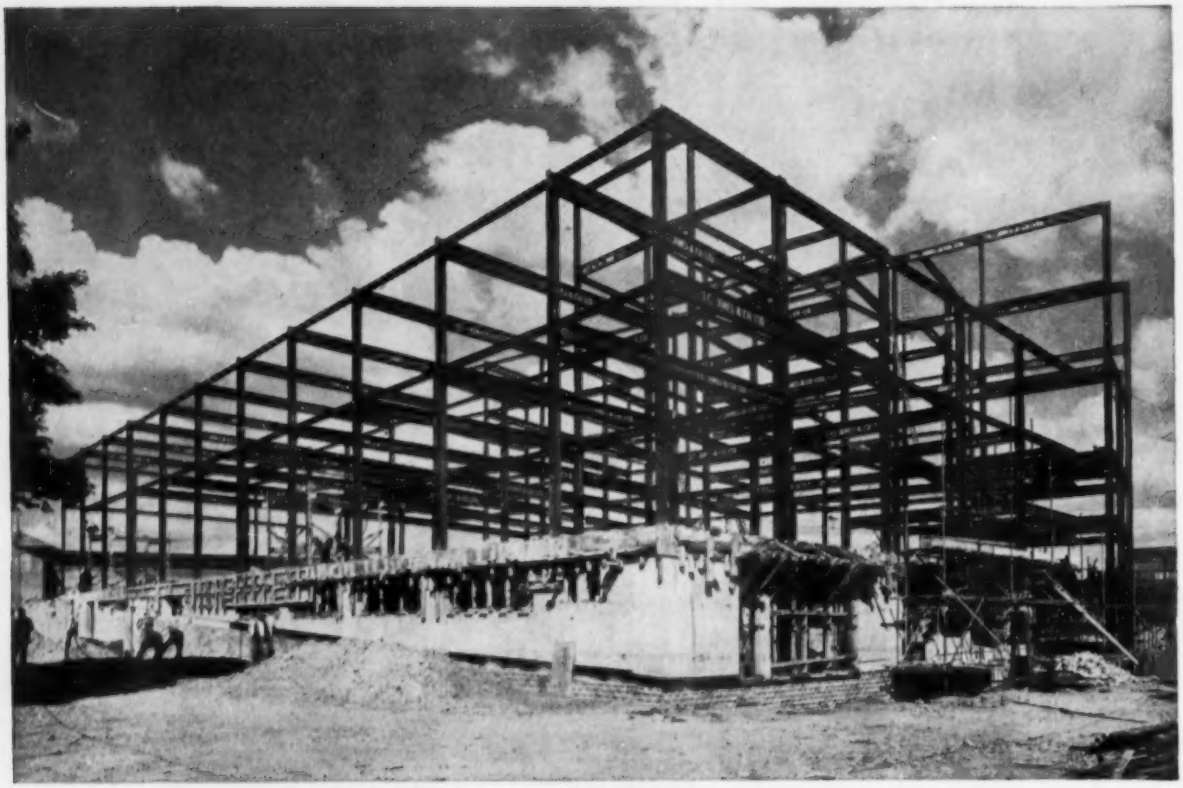

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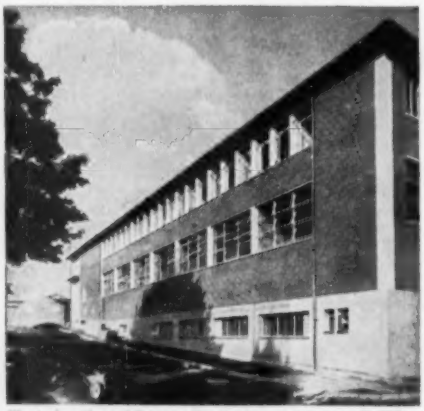

West elevation of Scenery Production and Storage Building

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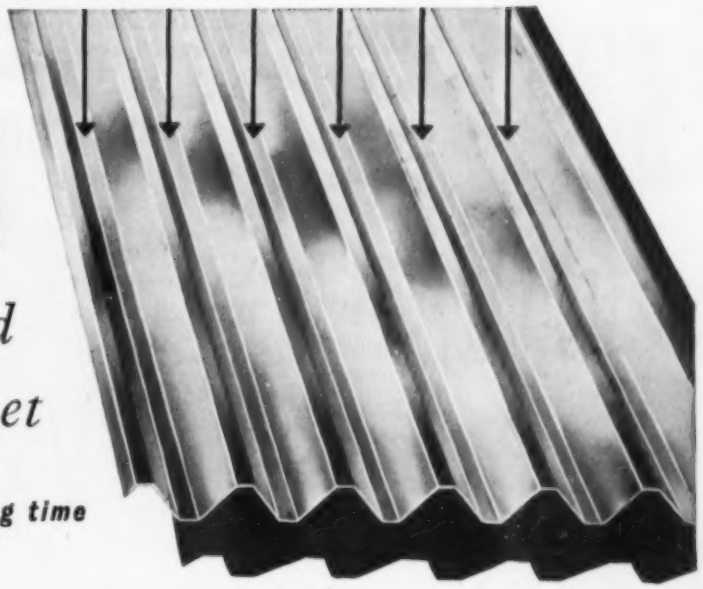
5311/JSE 52

NEW, WIDER, 6-TROUGH

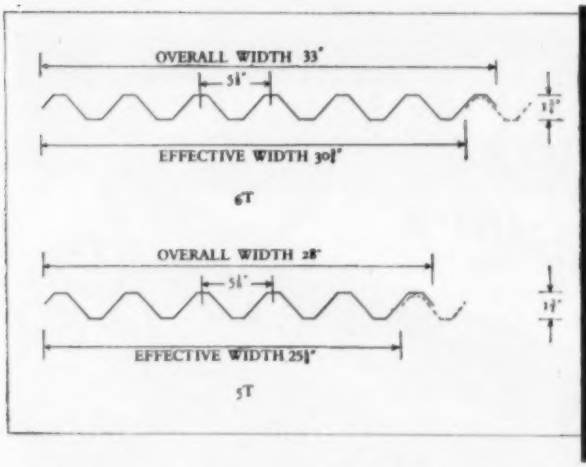
'Rigidal'

corrugated aluminium sheet

Saves handling, lapping and fixing time



In view of the success of 'Rigidal' 5T and 4T sheet, British Aluminium are now producing a 6T section which not only possesses all the features of the narrower sheets but also offers several additional advantages. Five inches greater in overall width than the 5T, the new 6T sheet saves 1 side lap in every 5, reduces handling, speeds fixing and affords greater cover per sheet.



Purlin spacings and recommended maximum design loads

Purlin Spacing	Design loads (lb./sq. ft.)	
	18 swg	19 swg
6′ 0″	87	71
6′ 6″	76	61
7′ 0″	64	52
7′ 6″	56	46
8′ 0″	49	40
8′ 6″	44	36
9′ 0″	40	32
9′ 6″	36	28
10′ 0″	32	25
10′ 6″	28	*

*Not recommended

Notes 1. The above design loads are based on a maximum working stress of 11,000 lb./in.² giving a factor of safety of 2 on the 0.1% proof stress (yield).
2. The zigzag line indicates the maximum purlin spacings which may be employed when working to B.S. Code of Practice C.P.3., Ch. V Para. 7b. Use of purlin spacings below the line depends upon the pitch of the clad surface, the maximum spacings shown being those recommended for vertical walls.
3. The recommendations tabulated above are based on an assumed minimum roof pitch of 10°, with sheets fixed in accordance with recommended practice, including seam bolts at 18" centres.

'Rigidal' sheet lights can be supplied to match Trough Section (5T) sheet.

THE BRITISH ALUMINIUM COMPANY LIMITED

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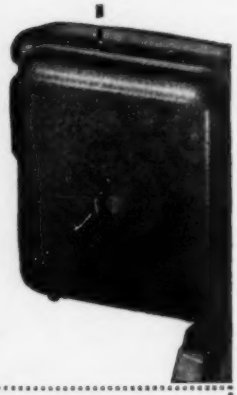

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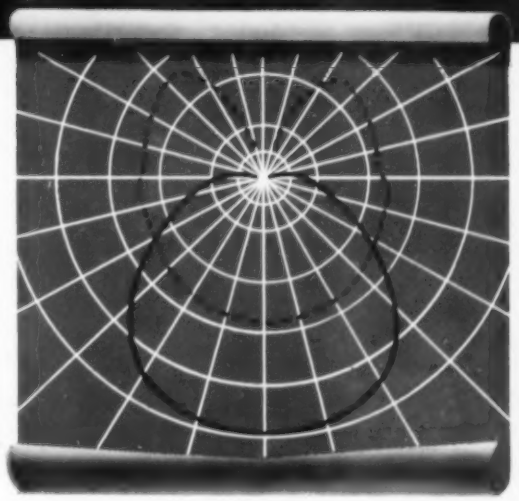

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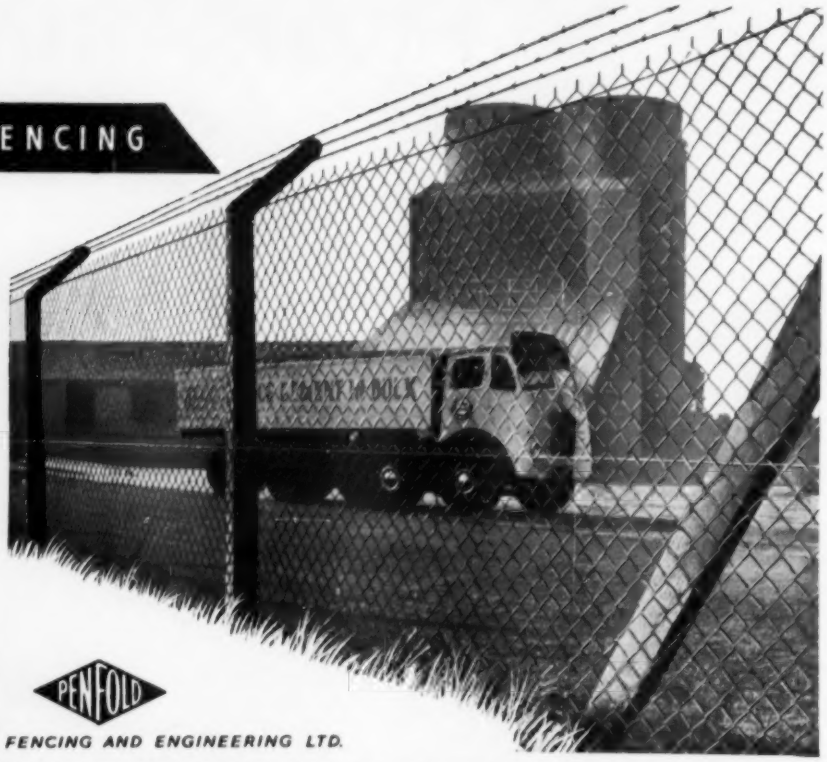

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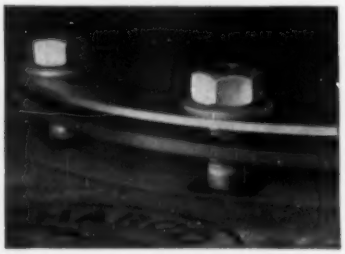

This is achieved by securing the heads of the bolts inside the tank, so that the screwed portion projects outside.

No hemp, red lead or other jointing material is required when fixing the cover, other than the India Rubber Ring which is supplied with the tank. This ring, together with the grummets fitted under the bolt heads inside the tank, enables a perfect seal to be made in much less time.

The cover itself is slightly convex to give additional strength, and the turned-over edge of the manhole presents a smooth rounded surface which cannot injure the hands or arms when installing the tank.

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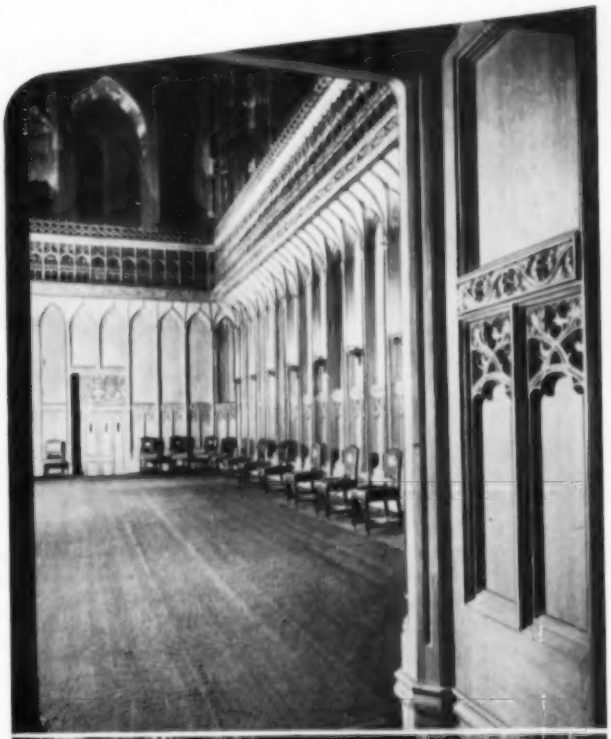

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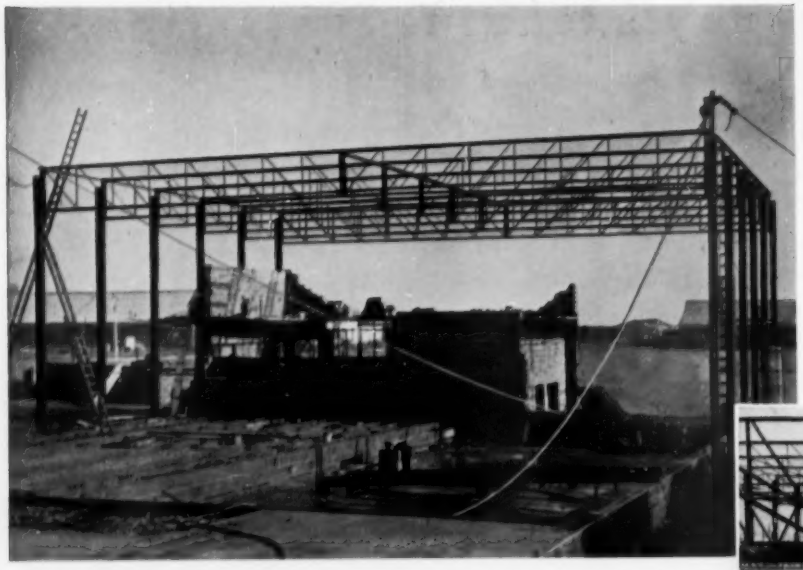
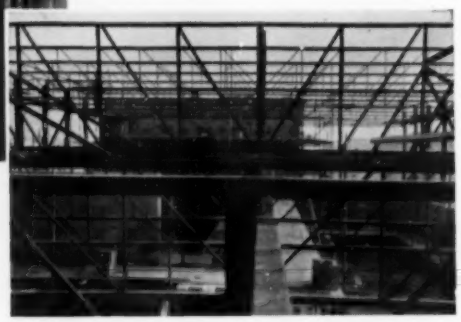


Hotchkiss lattice construction is being used for new schools, churches, factories, halls and many other buildings to the requirements of County Councils, Borough Councils and many leading architects.

The system is entirely flexible in application and suitable for all types of covering materials.

Your specific enquiries are invited. Our design services are free and it is most advantageous to call us in at an early stage.



52 ft. lattice girders at a Portsmouth factory. Architects: Thomas Jolly & Grant. Contractors: John Hunt Ltd.

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Vol. 206 No. 7

THE ARCHITECT & BUILDING NEWS

12 August 1954

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Published by ILIFFE & SONS LTD., DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1
Telephone: WATERLOO 3333 (60 lines). Telegrams: "ARCHITONIA, SEDIST, LONDON."

Branch Offices: Coventry: 8-10 Corporation Street; Birmingham: King Edward House, New Street; Manchester: 260 Deansgate. Tel: Blackfriars 4412 (3 lines), Deansgate 3595 (2 lines); Glasgow: 26B Renfield Street.

SLUM CLEARANCE

THE impetus of the successful housing drive must if possible be carried on in dealing with the slums. A good start was made by the Annual Conference organized by the Housing Centre last month, opened by Sir David Eccles who said that a reserve of work would be required to keep up production in the building industry when there were no controls. The Government could only find this reserve in the nationalized industries; it would therefore be of immense national benefit if local authorities began drawing up plans for slum clearance so that it could be included in the reserve.

But for the war this problem would not be serious, but the destruction of over 225,000 houses and severe damage to half a million more, coupled with a standstill in maintenance on the four million-odd dwellings that are 75-100 years old, brings us face to face with an enormous and costly task. The situation is general to Europe. Until recently, most countries have concentrated on building as many new houses as possible; now, however, in many of them, attention is turning towards the elimination of obsolete and insanitary housing, the reduction of overcrowding and the modernizing of houses with a further useful lease of life.

Slums develop out of overcrowding in cities and are a world problem. It is estimated that even in Sweden, which was not involved directly in the war, there are 30,000 dwelling units that would be condemned if there were no housing shortage.

The immediate requirement is to hold these slums to a minimum while plans are made for re-development to a lower density. In a leading article *The Financial Times* considers that "the slum problem is still very serious, but it is normally exaggerated. The number of houses that will need replacement . . . is probably not more than a million, though tens of thousands may be relapsing into the slum category each year."

Few local authorities have been able to carry out an overall survey since the war, and until the exact position is known it will be hard to say what strain it will put on the industry if it is to be tackled resolutely. Certainly a wedge should be put behind the wheel in the case of the dilapidated housing which is in process of turning into slums. Empty houses are becoming much more common and should be taken over, improved and occupied promptly so that more clearance areas can be vacated for re-development.

The Government's proposals are that a survey should be made by local authorities of houses and slum areas to divide them into four categories:

(a) Those to be demolished within the next five years.
(b) Those to be demolished in subsequent years.
(c) Those to be made habitable for five years at reasonable cost.
(d) Those to be improved or adapted for habitation or for some other economic use.

The criterion of fitness or otherwise for human habitation is based on the following factors: (a) repair, (b) stability, (c) freedom from damp; (d) natural lighting, (e) ventilation, (f) water supply, (g) drainage and sanitary conveniences, (h) facilities for storage and preparation of food and for disposal of waste water. Only if a house is hopelessly deficient in one or more of these requirements shall it be demolished. The cost of buying property and maintaining it until it can be demolished will be borne equally by the Government and the local authority.

It will be objected that private enterprise building will turn in the direction of new houses leaving the local authorities to grapple with the thankless clearing of the Augean stable with such resources as are not absorbed by more profitable work. This is the real problem of the slums, here and all over the world. They represent a mess inherited from the

The first of the L.C.C.'s comprehensive schools, Kidbrooke School for 2,000 girls, will open in September. The view above is from the biology greenhouse and shows the N.W. wing, Centre Block and part of S. Block. The architect is Charles Pike, A.R.I.B.A., of Messrs. Slater, Uren & Pike. The structural engineers are Messrs. Ove Arup & Partners, and the general contractors are Messrs. Gee, Walker & Slater Ltd.

past, with no appeal to enterprise or initiative. But someone must do the washing-up, and if it is realized that it is not so much bricks and mortar that are being patched up and washed down so much as sweetening society as a whole—we are all part of the main—the task should carry with it the encouragement, support and rewards that it deserves.

Let us say that the country is like a well-dressed and clean-shaved man whose socks are foul and filthy and boots in holes, so that before he buys himself a new tie he should attend to these things and not say he cannot afford them. The cost of slums cannot be assessed in ordinary terms since their repercussions involve enormous sums of money which could be saved in future by resolute action to make up for all the time lost since the 1930 Slum Clearance Act came into force.

EVENTS AND COMMENTS

THE FIRST L.C.C. COMPREHENSIVE SCHOOL

The photograph at the head of the page shows the first of the L.C.C.'s comprehensive schools. It is at Kidbrooke between Blackheath and Shooter's Hill. The school, which was designed by Slater, Uren & Pike, is almost finished and will be opened in September. A fully illustrated report will be published in the *A. & B. N.* towards the end of that month, meanwhile here are some preliminary observations. To my mind the place is far too big, but that is hardly the fault of the designers. The L.C.C.'s idea is to educate all standards of intelligence, in this instance all girls, in one building. When fully in use the school will accommodate 2,000 pupils. In an effort to reduce the apparent size of the school in the eyes of the pupils, Mr. Charles Pike, the partner-in-charge, has broken the design down into a number of

similar self-contained, but interconnected, teaching blocks; each block has its own entrance, cloakrooms and lavatories.

The accommodation includes kitchens and, a new departure, dining classrooms which can be thrown open to a servery on each of a number of floors. The main hall, where the whole school can be assembled standing for prayers, is a magnificent affair although it is a shade too much patterned for my taste. My eyes wandered from feature to feature, many of them good, without finding anywhere to rest. One of the features is a venetian blind nearly sixty feet long and power operated. My old friend the Festival of Britain shape is much in evidence in the hall and foyer. The colours throughout are bright and cheerful and a code has been worked out for the various sections. Much of the best-designed contemporary door furniture on the market has been used, and it is a reflection on British manufacturers that some of the bolts and lever handles are of German make. The architects have designed a special egg-shaped door-knob which, they say, combines the advantages of a lever handle and a circular knob. It certainly seems to fit the hand comfortably and looks well. In comparison with the door furniture the window furniture is of very poor design. Architects will agree, I am sure, that the best available window furniture leaves much to be desired from appearance and hand-comfort points of view. I cannot think why this should be. Could not the Metal Window Association do something about it?

The building is most lavishly furnished and equipped, and the L.C.C. are to be congratulated on furnishing in a way which fits the school. I noticed a good new wooden stacking chair by E.S.A. among other excellent equipment. The sewing rooms have several kinds of machine and the domestic science kitchens almost every type of cooker imaginable. There is, however, one extraordinary feature. As I have said, the school is well furnished in the contemporary manner—the staff common rooms are delightful—but when it comes to a demonstration flat for teaching housework, the furniture changes to period reproductions. Why? Is it intended to make the children feel more at home?; to warn them of the horrors of the bourgeoisie?; or to give them something to look forward to? I suggest that even now it is not too late to change this furniture.

I came away from the school with feelings of envy and regret. Envy that my children, for whom I pay so much, should be educated in buildings which are slums by comparison, and regret that the L.C.C. had considered it a good idea to build so vast—and in spite of the architects' valiant efforts—so impersonal an educational factory.

FEES UP AT THE A.A.

I have no doubt that there were long deliberations at the A.A. before the council decided to increase the school fees from £40 to £50 per term with effect from the spring term, 1955. The school, as everyone knows, is truly independent and receives no State aid. Fees at University and local authority schools of architecture are only a fraction of those at the A.A. although actual costs per student are thought to be higher even than the A.A.'s new scale.

In an effort to offset the effect of the increase in fees the A.A. Council is to call upon members and friends of the Association to found scholarships. This would enable some students to be accepted at reduced fees. Details are expected before Christmas.

Like any good school the A.A. prefers to choose its own students and any increase in fees is bound to reduce the number of candidates presenting themselves. State grants are all very fine but they do not cover the whole social structure. The son of an even moderately successful architect stands little chance of obtaining a grant which will pay fees as high as those of the A.A. and this undoubtedly prevents some of the best material from ever reaching the A.A. Thus we have the paradox of a school of architecture set up and run independently for a 100 years by architects whose professional descendants cannot now afford to send their sons to the school but must have them trained elsewhere.

THE SPECULATIVE BUILDER

A reader has drawn my attention to a page of advertisements from the *(Manchester) Evening Chronicle*. Headed "The House Builder," the advertisements frame a short article on owning your own home. The designs illustrated are no better and no worse than the usual run of pre-war speculative builders' stuff. The sad part about it is that they do not appear to have benefited in any way from post-war experience. Many of the best architectural and building brains in the country have been engaged on housing since the war. Great advances have been made in planning, equipping, grouping and landscaping. Ministry awards have been made to many of the best schemes. These schemes have been illustrated. The speculative builder has no excuse whatever for continuing to offer his monstrous semi-detached villa. That he finds a ready market for his stuff is beside the point. He certainly provides terms of purchase with which the small would-be home builder cannot compete.

Surely it is time that the R.I.B.A. and the National House Builders' Registration Council got together and produced some worth-while designs for the speculative builder.

As a footnote I quote from one of the advertisements mentioned above. "Several attractive designs to choose from—or bring your own ideas and we will design your DREAM BUNGALOW while you wait."

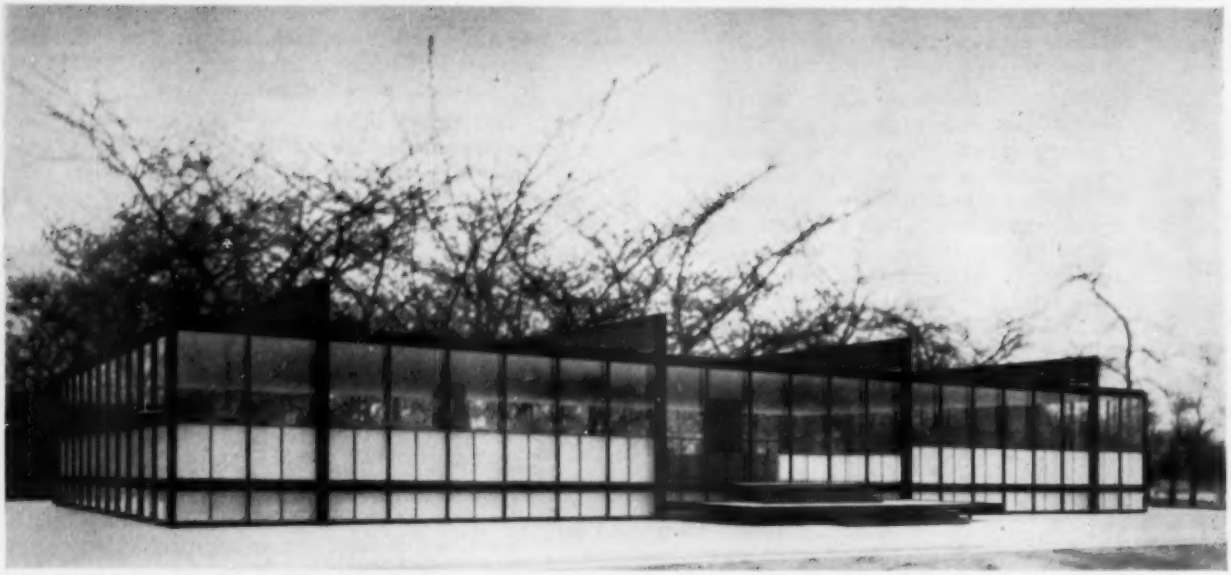
COUNCIL OF INDUSTRIAL DESIGN

The C.o.I.D. report for 1953-4 has recently appeared. It is a record of useful work and steady progress with the manufacturing world. I think the most important point in it is the reference to the foundation of a permanent exhibition of designs of British consumer goods.

The provision of such an exhibition came within the original terms of reference of the Council, but hitherto it has not been practicable to stage it.

The Council has now asked the Government to approve in principle the setting-up of a Design Centre for British Industry subject to the granting of the necessary funds by Parliament. Such an exhibition is badly needed to carry on the excellent work done by the C.o.I.D. behind the scenes. It would not only serve as a guide to manufacturers, but would be a shop window for industry of great interest to trade and public alike.

ABNER



Model of the new Architecture, Design and City Planning Block, Illinois Institute of Technology, Architect: Mies van der Rohe, which is to be erected next year at an estimated cost of $600,000. It will be the 20th new block on the I.I.T. campus in the last 10 years and will be an air-conditioned welded steel structure with suspended roof providing 52,000 square feet of floor space.

NEWS OF THE WEEK

Housing Progress

The number of houses completed in Great Britain during the month of June was 30,973 (June 1953 figure: 26,598). During the first six months of this year private builders completed 39,730 houses (55.9 per cent increase on 1953 figure) and local authorities built 116,552 houses (2.9 per cent increase on 1953 figure for same period).

Claims for Increase in Rent for Repairs

The form of notice to be used when the Housing Repairs and Rents Act, 1954, comes into operation on August 30, is contained in Regulations* made by the Minister of Housing and Local Government which were published on August 3.

Under this Act landlords may claim a repairs increase in rent where they can show that they have done repairs of not less than a certain value within a specified period and that the house or flat is in good repair and reasonably suitable for occupation. The Regulations prescribe the form which the landlord must use to claim this increase, and the form of declarations he must make that the house is in good repair and that he has done the required work of repair. The landlord must give a general description of the work and state its value, so that the tenant can check the accuracy of the claim.

Landlords must give their tenants at least six weeks' notice of their intention to claim the repairs increase.

The form which a tenant must use in order to pass on the appropriate proportion of any repairs increase to a sub-tenant is also given.

New forms have also been prescribed that, after August 30, must be inserted in every rent book or similar document telling the tenant of his rights under the various Acts and the action he can take if he does not agree the amount of rent that could properly be charged or if he considers the premises are not in good repair or reasonably suitable for occupation.

New forms have been prescribed also for claiming increases of rent under the existing Acts, for example, when the rates go up.

Arbury Hall Decision

The Ministry of Housing and Local Government, has, after consulting the Minister of Fuel and Power, decided that coal shall not be worked under about 36 acres of land, in the centre of which stands Arbury Hall, Nuneaton, a building which is listed as being of special architectural and historic interest.

The Minister's decision follows a local enquiry held at Nuneaton in January at which the National Coal Board sought permission to work two out of four seams in a pillar of coal underlying the land.

It was stated on behalf of the Board that the coal in the two seams it proposed to work was of the highest quality: on the other hand the Board recognized the need to avoid damage to Arbury Hall. It had, therefore, prepared careful plans for a special method of working designed to minimize the risk of damage. If these plans were followed, the N.C.B. considered the building should settle evenly and without undue strain and that the efforts of mining the coal, either on the structure of the building or on its internal decoration, would be negligible. The application was supported by the National Union of Mineworkers.

In a statement read at the enquiry, Arbury Hall was described by the Minister's advisory committee on buildings as the finest and most complete example of eighteenth century Gothic decoration in the country, its most notable element being the ceilings with elaborate plaster ribs and tracery.

Representations were made against the application by Capt. Humphrey Fitz-Roy-Newdegate the owner of Arbury Hall, Warwickshire County Council, Nuneaton Borough Council, Birmingham and Five Counties Architectural Society, Birmingham Archaeological Society, the George Eliot Fellowship, the Society for the Protection of Ancient Buildings and the Georgian Group.

CORRECTIONS

In the article on "Some Recent Exhibition Stands," *A. & B. N.* 15.7.54, it was stated that the mobile in the Northern Ireland Stand, B.I.F., Earls Court Section, was by Thomas Houston. It was actually by Trevor A. Houston, Dip., Arch., A.R.I.B.A., A.M.T.P.I.

CURRENT MARKET PRICES

In the *A. & B. N.*, July 22, under Glass there appeared the item "¼in Calorexficast ditto." This should have been "¼in Calorex cast."

* S.I. 1954 No. 1036 The Housing Repairs (Increase of Rent) Regulations, 1954. H.M.S.O. Price 9d.
S.I. 1954 No. 1035 The Rent Restrictions Regulations, 1954. H.M.S.O. Price 4d.

CORRESPONDENCE

R.I.B.A. External Examinations

To the Editor of A. & B.N.

SIR,—Instead of abolishing the R.I.B.A. External Examinations, as proposed by Mr. M. E. Taylor in his article in the *A. & B. N.* of July 22, less drastic and, it seems to me, a more just solution to the problem of architectural education would be to institute a common Final Examination.

The papers would be set and marked as in the External Examination and those at schools wishing to qualify as Associates would take their examinations at school under exactly the same conditions as the students sitting externally.

Thus the school-trained students would have the advantage of having been prepared for the examination in a class and having set class examinations, but everyone would have the satisfaction of knowing that the same knowledge, ability and examination technique was required of everyone proposing to be elected an A.R.I.B.A.

I should like to add that I have had experience as a student under both conditions and consider that the conditions for the external examinations are much harder than for school examinations.

I am, etc.,
P. P. GRAM.

To the Editor of A. & B. N.

Sir,—May I reply to the article "R.I.B.A. External Examinations" by M. E. Taylor, A.R.I.B.A., in your issue of 22nd ultimo.

I should like to ask the question—in all seriousness—who is really entitled to object to the number of relegations?

Mr. Taylor admits it is over twenty years since he sat for the Intermediate. He is surely therefore not entitled to express his opinion as to the attitude to the examinations of to-day's students. I can assure him that to a very great number qualifying to-day has become a nightmare.

If students present themselves time after time it surely indicates perseverance, which is, I take it, a moral attribute to be commended. When a student does get through he is certainly better equipped by such hard-won knowledge than the "brilliant" student who sails through with flying colours, and then finds that his knowledge has fallen off him like water off a duck's back. If I may venture to be dogmatic, it is the so-called mediocre student in any calling who travels farthest and enriches his chosen profession the most, as witness Sir Winston Churchill.

If the Board of Architectural Education is concerned as to the future of the profession, as it must be, I do not think that it is entitled to regard the recent percentage of relegations as in any way likely to debase its future quality, or its status in the eyes of the public, who after all, invariably judge a man by what he *does*.

I am, etc.,
REGISTERED ARCHITECT.
(name supplied)

Floor Warming

To the Editor, A. & B. N.

Sir,—I read Mr. Bruce's reply to my letter published in your issue of June 24 with surprise, and a measure of disappointment—surprise that Mr. Bruce, a Past President of the Institution of Heating and Ventilating Engineers, thought fit to spend time and space on sarcastic reference to what he terms, lack of experience, ignorance and/or "a deliberate policy on my part to lump a lot of things in the name of boiler efficiency."

Having re-read my letter, I make no apology for repeating the theme of my contention, viz., boiler efficiency is a totally different matter from that of overall efficiency of actual load demand, as Mr. Bruce must know full well, irrespective of whether the heating medium be solid fuel, oil, gas or electricity. The degree of difference is, I contend, of material importance as between coal and electricity, and to a minor extent, between coal and oil or gas—disappointment that with Mr. Bruce's unquestioned knowledge of heating subjects in general, he should make use of the undernoted quote as the preamble to his sweeping condemnation of electricity:

"Electricity is expensive as a heating medium because nearly 80 per cent of the energy in the coal is dissipated in Power Station Plant and transmission equipment."

I would strongly recommend Mr. Bruce to study the following quote extracted from the recent report by the British Productivity Council:

(a) On the present level of industrial activity Great Britain could save no less than 30,000,000 tons of coal a year without impairing any services. The money value of that might be put at more than £100,000,000.

(b) From all the coal consumed in this country some 80 per cent of the heat is lost.

(c) Over 1,000,000 tons of coal were saved in the power stations of the British Electricity Authority last year by increased efficiency in operation. The overall average thermal efficiency of some 300 steam stations was 23.22 per cent in 1953, compared with 22.62 per cent in 1952. The difference not only represented a great saving in the use of coal, but also an economy in costs of well over £3,000,000, and that despite the fact that their boiler-house plants consume a considerable tonnage of low-priced inferior fuels. "It was notable that for the first time in this country, three of the stations attained an efficiency higher than 30 per cent."

Note: The data given under Item C takes no account of the many millions of units annually supplied to the grid from hydro-electric stations, without consuming so much as a pound of the country's coal.

I can find no justification, from a study of the foregoing, to reconsider my strong belief in the wisdom of using electricity for specific heating schemes, more particularly so when the scheme involves intermittent heating for, say, *seven to eight hours per day* throughout a *five-day week*, in buildings such as Schools, Blocks of Offices, etc., and for considerably shorter periods, Churches.

The following data may be of interest. During the past 25 years my firm have been responsible for the design of many large and small heating systems covering Steel Works, Factories, Hospitals, Schools, Public Buildings, etc., and the records show that slightly over 93 per cent have had solid fuel, oil or gas as a heating medium, and, accordingly, less than 7 per cent were all-electric, a fact which I trust may convince Mr. Bruce that whatever the reason for his view differing strongly from my claim for giving electricity a place in the heating world, I must reject his suggestion that it is due to lack of experience on my part.

Furthermore, I find that from the heating schemes my firm have on hand at the present time covering fifteen new school buildings for the Department of Education, eleven are for solid fuel, one for gas and three all-electric, thus showing a notable percentage increase in favour of electricity.

Finally, I have available a certified record of the electrical units consumed during the past year for a seventeen-classroom School, with usual corridors and ancillary rooms, which units after conversion to the coal equivalent fully support the efficiency claims made by Mr. J. W. Moule in his admirable paper delivered at the recent E.D.A. Conference.

I am, etc.,
J. S. A. PRIMROSE,
Senior Partner of
Ramsay & Primrose,
Consulting Engineers, Glasgow.

(There was a misprint in Mr. Primrose's previous letter (24.6.54) in which the formula in the third paragraph should be correctly "equals $Y \times 2.24 \times 1.2 \times 0.7 \times 10^7$ B.T.U.s".)

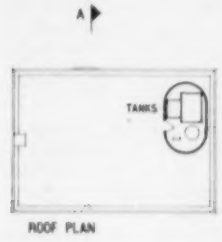
APPOINTMENT

Mr. Herbert Jackson, F.R.I.B.A., of Jackson and Edwards, has been appointed consultant by Warwick Corporation for the layout of the proposed new Percy Housing Estate at Warwick estimated to cost £1¼m.

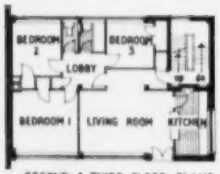
RETIREMENT

Mr. J. E. Davison, L.R.I.B.A., assistant architect Cambridge City Council, retired at the end of last month after 27 years' service with the City Council.

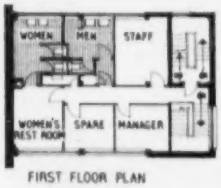
George's Street Elevation



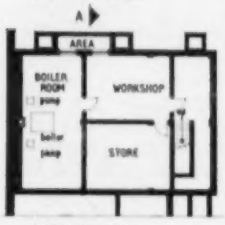
ROOF PLAN



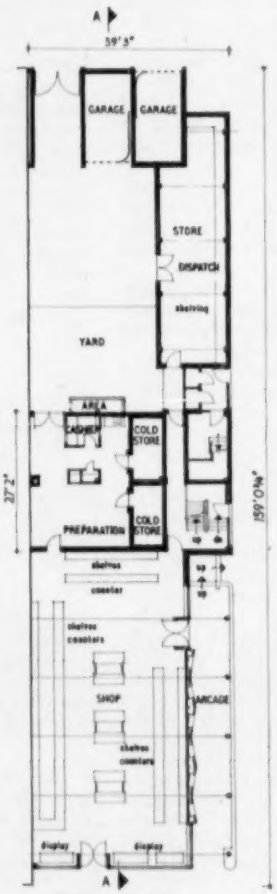
SECOND & THIRD FLOOR PLANS



FIRST FLOOR PLAN



BASEMENT PLAN



GROUND FLOOR PLAN

New Shop for Messrs. David Greig. Canterbury

architects:
ROBERT PAINE & PARTNERS

consulting engineer:
OVE ARUP & PARTNERS

THE rebuilding of 23, St. George's Street, Canterbury, destroyed in the Blitz, was commissioned by the owners in June, 1952. The site is part of the Canterbury City Area redevelopment and the new building was subject to planning and elevational control in accordance with the block scheme devised by the City Architect, L. H. Wilson, O.B.E., A.R.I.B.A., A.M.T.P.I.

To comply with this scheme it was necessary to form a more than lofty shop giving a two-storey effect to the street and square and to contain the staff quarters and residential accommodation in a taller block behind.

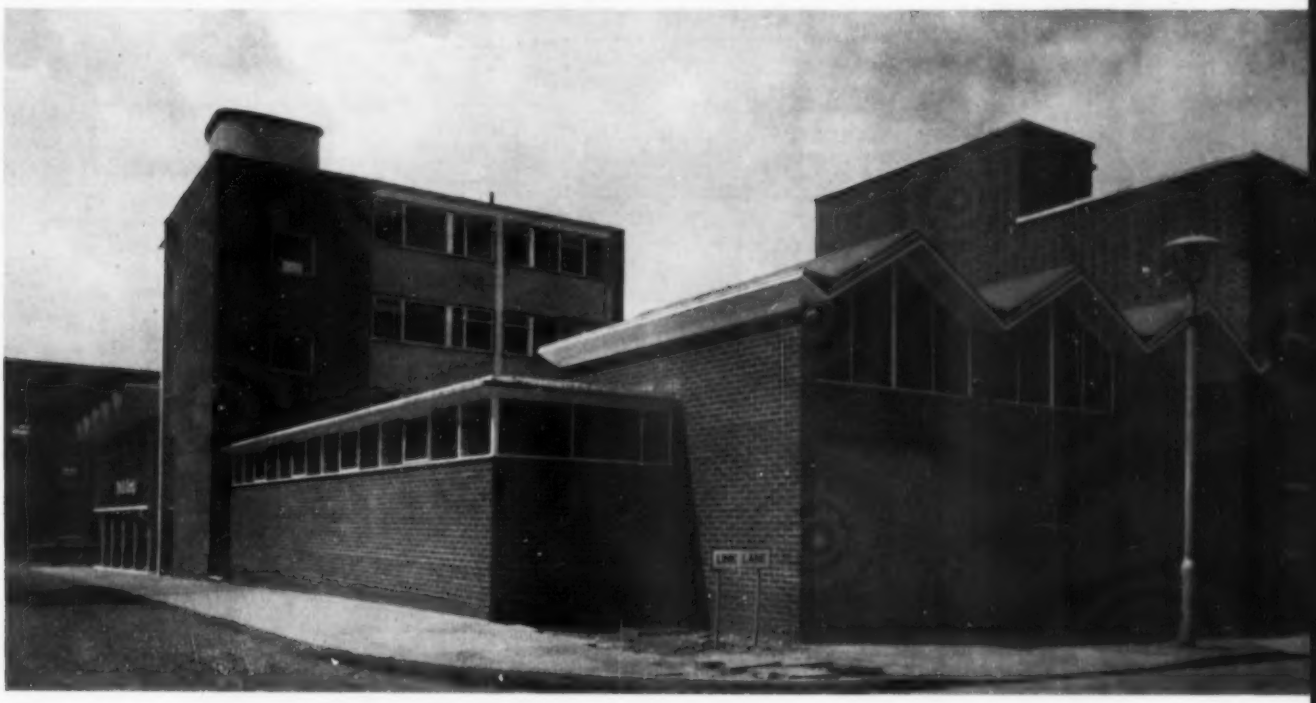
The scheme as built, with only slight modification, was designed in five weeks for submission to the owners who promptly and courageously accepted what was to them a revolutionary proposal. The scheme was then submitted to the City Council and, because of strong opposition by members of the Planning Committee, was put to a vote and approved at a meeting on October 1, 1952.

Six firms of builders were invited and submitted tenders, and the contract was let to Messrs. G. H. Denne and Son, Ltd., in June, 1953. Work commenced on site on July 7, 1953, and was finished on July 10, 1954, only ten days after the time stipulated.

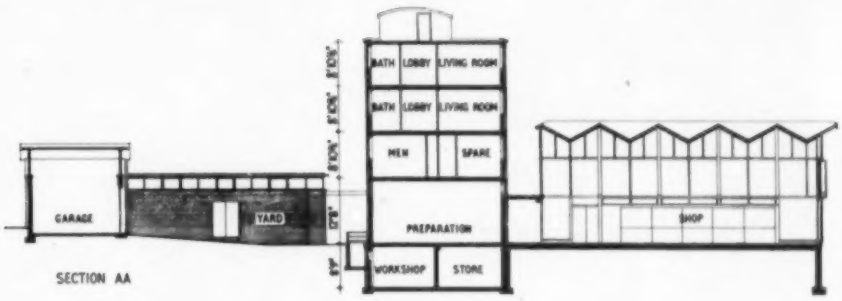
Plan

The building is arranged in three parts, shop, offices and flats, stores and garages, and an enclosed yard is

SCALE OF PLANS: 1in = 32ft



Rear Elevation



LONGITUDINAL SECTION
SCALE: 1in = 32ft

SECTION AA

provided for loading and unloading goods. These parts and their separate functions are clearly expressed in the general form of the block and are set in a contrapuntal relationship. The shop extends under the block containing the offices and flats, below which is a basement for the heating plant and further stores. At the rear of the shop is the Butchers' preparation room and the cold stores. The warehouse, which serves as a despatch room for country orders, communicates directly with the shop.

One entrance serves the staff with direct access to the shop. A staircase serves the flats, of which there are two each with living room, kitchen, three bedrooms, bathroom and W.C. There are two garages, one for the shop and the other for the flats.

Shop Layout

The clients lay emphasis upon Personal Service in their shops and their intention is that by the use of a large number of assistants all equipped to take cash that service shall be as speedy as in Self Service Stores plus the benefit of attention and the fresh cutting of bacon, meat, cheese and cooked meats.

The proportionate division of counters is therefore in favour of the meat, poultry, provision and cooked meat counters where space is required for cutting and carving. Grocery is concentrated and the tops of the counters used for the display of pre-wrapped goods.

Very little in the way of window display is intended and the large plate glass windows show the shop in use to the best advantage. This was not felt possible behind the grocery counter where a showcase unit has been inserted. This contains displays intended to take the place of the familiar pasting of advertisements and prices upon windows, each department is allocated one to advertise a particular bargain.

Construction and Materials

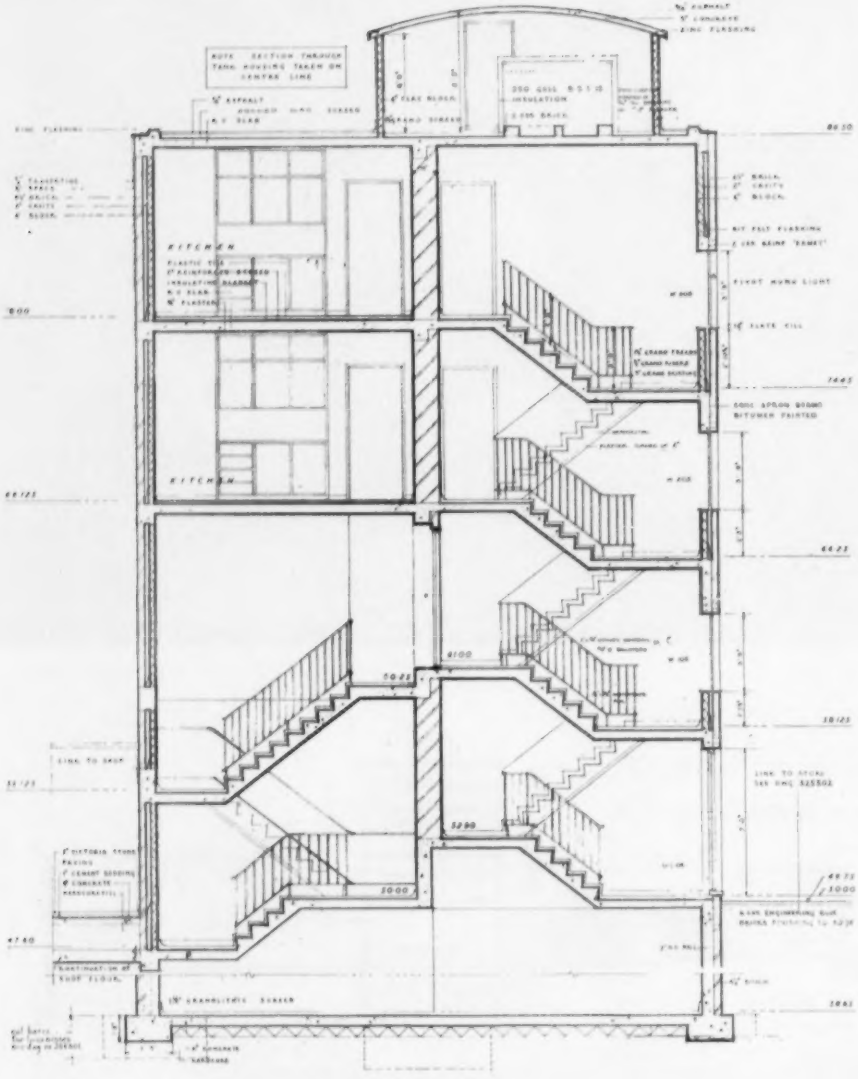
The Shop and tall block are reinforced concrete framed, the warehouse and garages are in brickwork with reinforced concrete roofs.

The roof of the Shop is a 3in thick slab supported only by a beam in the party wall and by the freestanding columns of the arcade. The floors of the flats and offices are of thick slab construction supported direct on columns without beams.

Foundations are of normal type in either strip or blob form. It was intended that they should be in plain mass concrete, but many disused wells were discovered which caused them to have to be enlarged or reinforced to bridge over the soft earth.

Load bearing walls internally are of hard Asford and Naccolt bricks with Staffordshire Blue Bricks as a damp-

David Greig: Canterbury



PLAN OF ARCADE AND DISPLAY BOXES
Scale: 1in–8ft

SECTION THROUGH THE VERTICAL BLOCK SHOWING THE STAFF STAIRS ON THE LEFT AND ACCESS STAIRS TO THE FLATS ON THE RIGHT.
Scale: 1in–8ft

proof facing below ground. Externally both load-bearing and facing bricks are Dorking Hand-made Sand faced.

The roofs, save that of the garages, are covered with asphalt laid on light-weight foam slag screeds. All the outer surfaces are dressed with white grit. The garage roof, being visible from the street, is covered with a grit finished bitumen felt whose colour harmonizes with that of the wall panels.

Taking into account that the new building can be seen against the Cathedral it was felt that its large wall surfaces should be made varied and interesting. For this reason the concrete framework is made visible externally but protected from the weather with cement paint and zinc flashings, and panels are introduced of colour contrasting with the brickwork. These are rendered with Stonite.

The marble facing of the wall at the end of the arcade is of Travertine from Italy, and its fine colour and pleasing surface seen from the arcade soaring out of sight make a dignified setting for the dedicatory inscription which will be carved there.

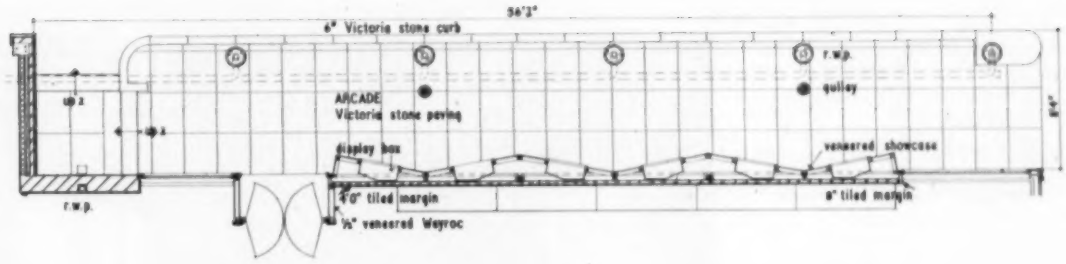
The shop, being the reason for everything else, received especial care. The materials used for the outside are those which are intrinsically valuable and most likely to mellow well, the exception being glass, the particular value of which is that it does not change.

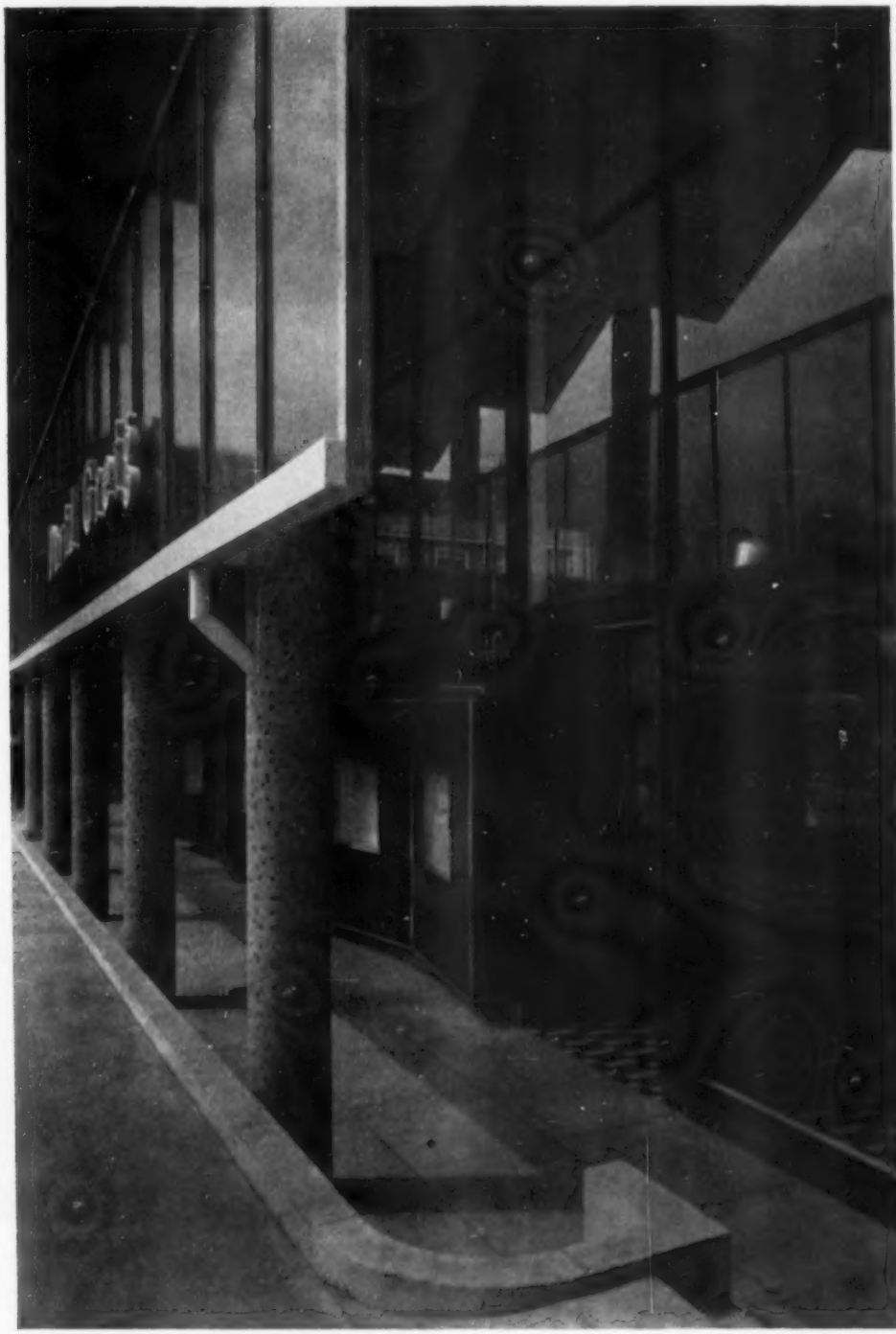
The visible part of the roof and the tops of the columns are sheathed in copper. The fascia and window riser are in Westmorland Green Slate of which in the fascia there are the largest single pieces procurable. The columns are faced with mosaic of small ceramic tiles. Joinery is of African mahogany and the trim is aluminium. The latter material is used also for framing the glass valance which protects the side of the shop from excessive glaze and screens the arcade. In lacquered form it appears again as the lightest material available for the suspended Thistle emblem. This was beaten out of sheets by Messrs. Morris Singer from a plaster model made by Mr. W. Day, A.R.C.A. Lettering is based on the shape always used for the firm's note-headings, and the letters, which were made by the Lettering Centre, are lead coated as a protection against corrosion and stove enamelled.

Fitments

The majority of fitments were designed by the Architects. As a contrast to the solid tiled front meat-provisions counter all other counters are light in appearance. They are framed

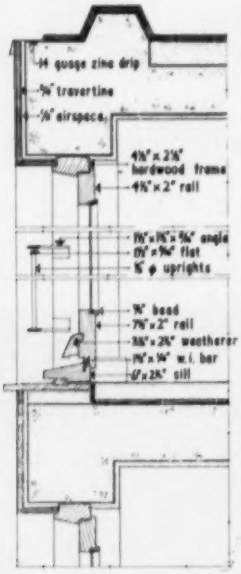
[Continued on page 183


56'2"
6" Victoria stone curb
r.w.p
quilley
ARCADE
Victoria stone paving
display box
veneered showcase
r.w.p.
4'0" tiled margin
9" tiled margin
½" veneered Weyroc



The Arcade

David Greig: Canterbury



SECTION THROUGH FRENCH WINDOWS IN THE FLATS, SCALE: ¼in – 1ft

Dining corner of flat living-room

Shop interior

Continued rom page 180]

up with 1in diameter tube stove enamelled matt black with solid brass feet, having ¼in bent ply fronts veneered with Lagos Mahogany and with either 1½in Sicilian Marble or Lagos Mahogany tops. The Butcher's block is of Hornbeam with frame and slats of Jugoslavian Beech clear cellulosed. The Accounts desk is Lagos Mahogany with continuous screen in Perspex. Window display fitments have ½in solid rod legs stove enamelled white, and an armour plate glass top bolted to the frame on rubber washers.

Cold counters are provided for poultry and meat display.

Shop Lighting

The lighting of the shop posed a particular problem; because of its height access to fittings mounted upon it would be difficult, or alternatively its appearance would be spoiled by a large number of suspension wires. It was, therefore, decided to use an almost totally reflective scheme using 500-Watt flood lamps mounted at a level of 9ft from the floor, 5ft 9in apart along each side of the shop. Direct lighting is used at the back of the shop to provide a focus and the shop window is equipped with the usual 150-Watt spotlights.

Heating

Central heating is provided to Shop, Offices and Flats by one Ideal gas boiler in the basement. The shop is heated by ½in copper tube panels set in the 3in floor screed together with finned pipes placed beneath the windows to prevent condensation. Care has been taken to place the panels where they cannot affect perishable goods, where there is no heating, wood block flooring is substituted for tiles.

The panel circuit uses low temperature hot water and is entirely separate from the high temperature circuit used for the Offices and Flats radiator system.

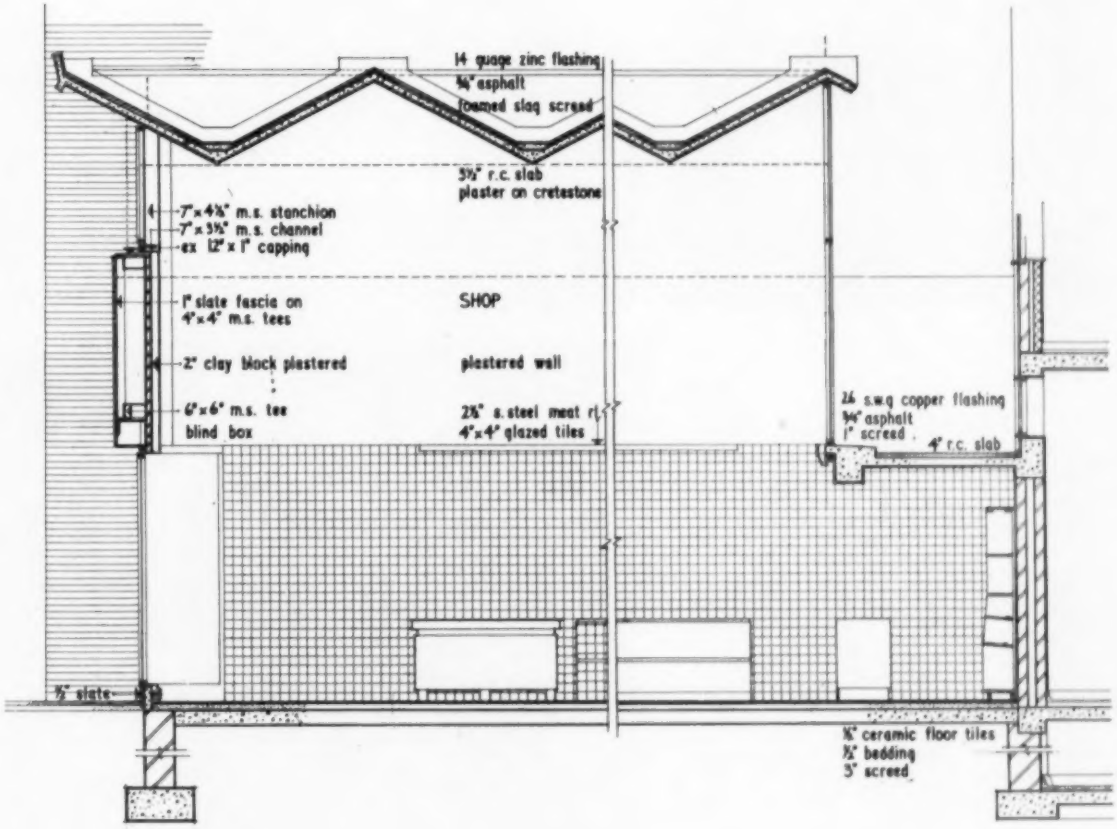
Both circuits are thermostatically controlled by Satchwell controls mounted on the North wall of the Centre Block.

The clients insisted on the minimum of maintenance and inspection of the scheme as they do not employ resident caretakers. Thus both circuits are controlled by time clocks. The Panel Time Clock goes over to "Night" temperatures at 5 p.m. on normal days and 1 p.m. on early closing day and Radiator Time Clock changes over to "Night" temperature at 10 p.m. on each day of the week. In order that heat shall not be wasted on the shop window pipes and in the staff quarters radiators between the hours of 5 p.m. (1 p.m. on early closing day) and, say, 6.30 a.m., the Panel Time Clock will close a motorized valve in the main flow pipe to these two portions of the system so that they will be "Off" when the shop panels are at "Night" temperature.

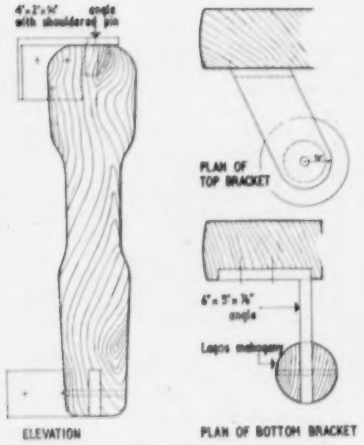
Supply of hot water to the office cloaks and preparation sink is by a Main No. 15 gas heater.

Supply of hot water to the flats is by a Sadia electric storage heater in the kitchen.

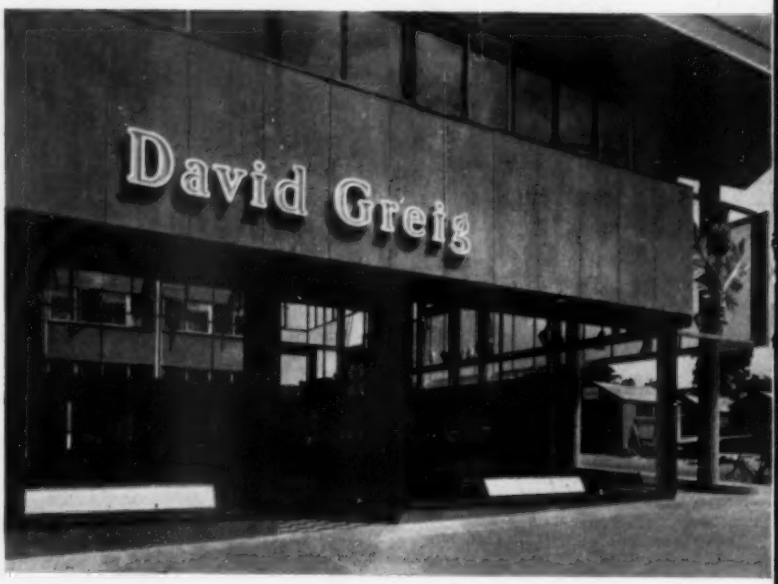
SECTION THROUGH SHOP
SCALE: 1in = 6ft



David Greig: Canterbury



DETAIL OF DOOR HANDLE



Main Entrance

Shop Interior

architects :
ROBERT PAINE & PARTNERS
Robert Paine, Charles Wright, Patrick Brown, Michael Crux

structural engineers :
OVE ARUP & PARTNERS

heating engineer :
H. J. KNOX, M.I.H.V.E.

quantity surveyors :
WILLIS & THOMPSON

Garages

General Contractor:

G. H. DENNE & SONS, LTD.

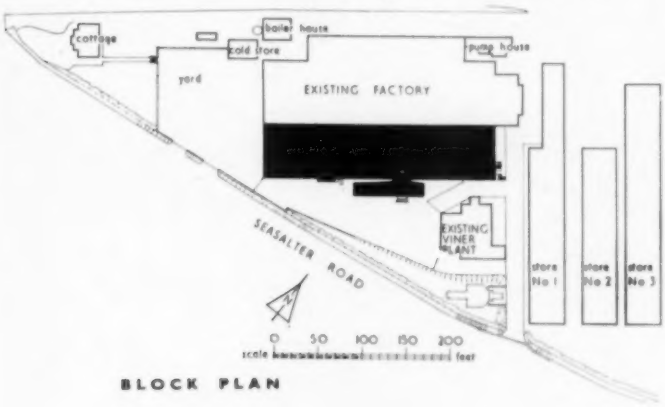
Display Lettering: The Lettering Centre.
Electrical Installation: Electron Engineering, Ltd.
Emblem: Morris Singer, Ltd.
Hardware: W. N. Froy and Sons, Ltd.; Nicholls and Clarke.
Heating: Messrs. G. N. Haden and Sons, Ltd.
Lighting: Philips Electrical, Ltd.
Loose Counters and Display Fittings: Harris and Sheldon, Ltd.
Plastic Tiling: Neuchatel Asphalte, Ltd.
Precast Floor Slabs: Concrete, Ltd.
Refrigeration: D. P. Toomey and Co., Ltd.
Sanitary Fittings: Alfred Olby, Ltd.
Slate: Setchell and Sons, Ltd.
Specialist Steelwork: Scaffolding (G.B.), Ltd.
Travertine Marble: Anselm Odling and Sons, Ltd., Westmorland.
Wall and Floor Tiling and Mosaic Works: Summers and Co.
Windows: Henry Hope and Son, Ltd.

South-East elevation

Extension to LADY DANE CANNERY, Faversham for British Fruit Ltd.

architects: ROBERT PAINE & PARTNERS

THIS extension to an existing factory was required to give two new production lines for the processing and canning of fruit and vegetables, together with ample storage room for empty cans and for sugar. It was also desired that offices, canteen and kitchen, cloakrooms and lavatories, and a fitters' shop, previously housed in a variety of makeshift buildings on the site, should be brought together in better relationship to the production areas.



BLOCK PLAN

The architects received their commission in November, 1953, and it was stipulated that the new production lines should be in operation by the middle of the summer of 1954. Demolition was begun in the last week of January, and production was started at the official opening on July 9, 1954, when the building was substantially complete.

Dry processes and off-site preparation of components were arranged wherever possible in order to meet a very tight time schedule. The main framework in structural steelwork followed the spacing of stanchions in the existing building so as to facilitate intercommunication, and three new longitudinal bays each 20ft wide and 265ft long were added; two of these bays are roofed as one with north light trusses, and the third has a lower, flat roof. As the factory processes produce considerable amounts of steam, the whole of the structural steelwork, together with the underside of the roof sheeting and the

Lady Dane Cannery, Faversham

first floor ceiling, were treated with "Pyrok" spray, to reduce condensation.

Except for two bays having an *in situ* filler joist construction, the whole of the upper floor and about one-quarter of the ground floor (over a cold store) are formed from precast prestressed concrete beams which were laid at high speed. Over the flat-roofed bay, asbestos cement cavity decking has a covering of bituminous felt, while the roof of the small lavatory block is in timber with bituminous felt.

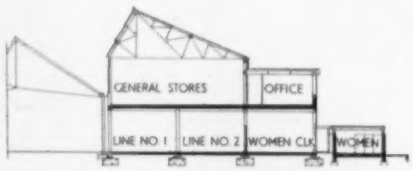
External cladding and roofing generally are in asbestos cement, with an area at ground floor level in transparent "Perspex" sheeting. The main glazing is based on a standard industrial sash module running the whole length of the building on the south-east side, and giving extensive views of the pleasant Kentish countryside whence the raw materials for the factory come. The upper floor storage area and the kitchen receive light also from a continuous run of north light glazing.

Finishes in the canteen area and in the offices are emulsion paints generally, with wallpapers in the Area Manager's Room and Factory Manager's office, while the Staff entry hall is lined with ash and mahogany faced panels. The floor of the staff entry is in Westmorland green slate (Broughton Moor), which is also used in the works entry, where three of the polished panels have an incised decoration of fruits and vegetables to the design of Mr. W. C. Day, A.R.C.A.

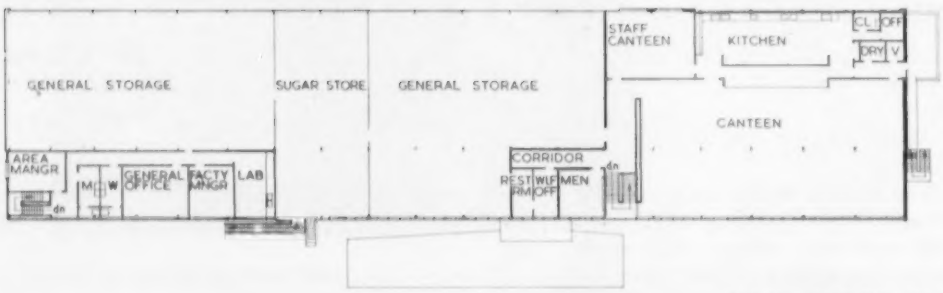
Electrical work, heating and water supply were specifically excluded from the main contract, and were undertaken by the factory staff or by direct contract with the client; in the offices area light fittings were selected by the architects. Furniture in the canteen and offices was selected by the client.

Key Plans and Section.

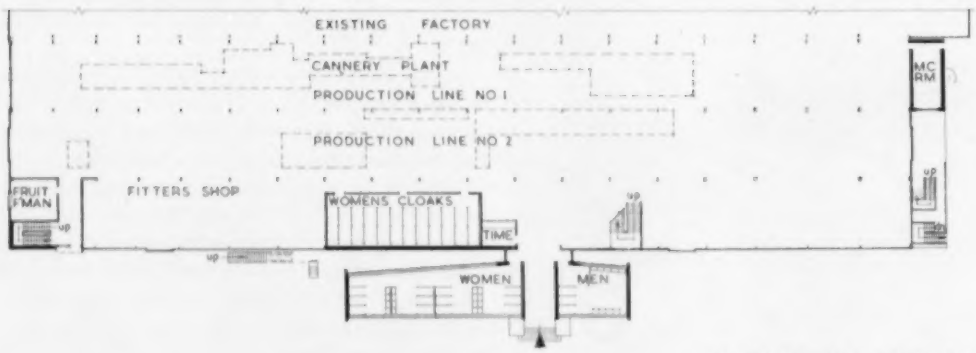
Scale: 1in = 48ft



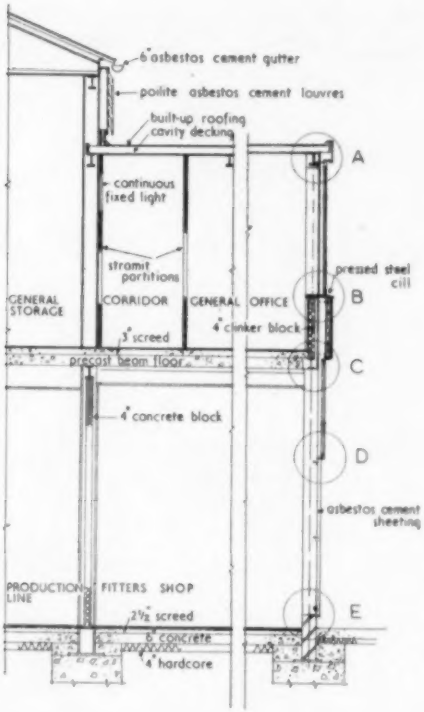
CROSS SECTION



FIRST FLOOR PLAN

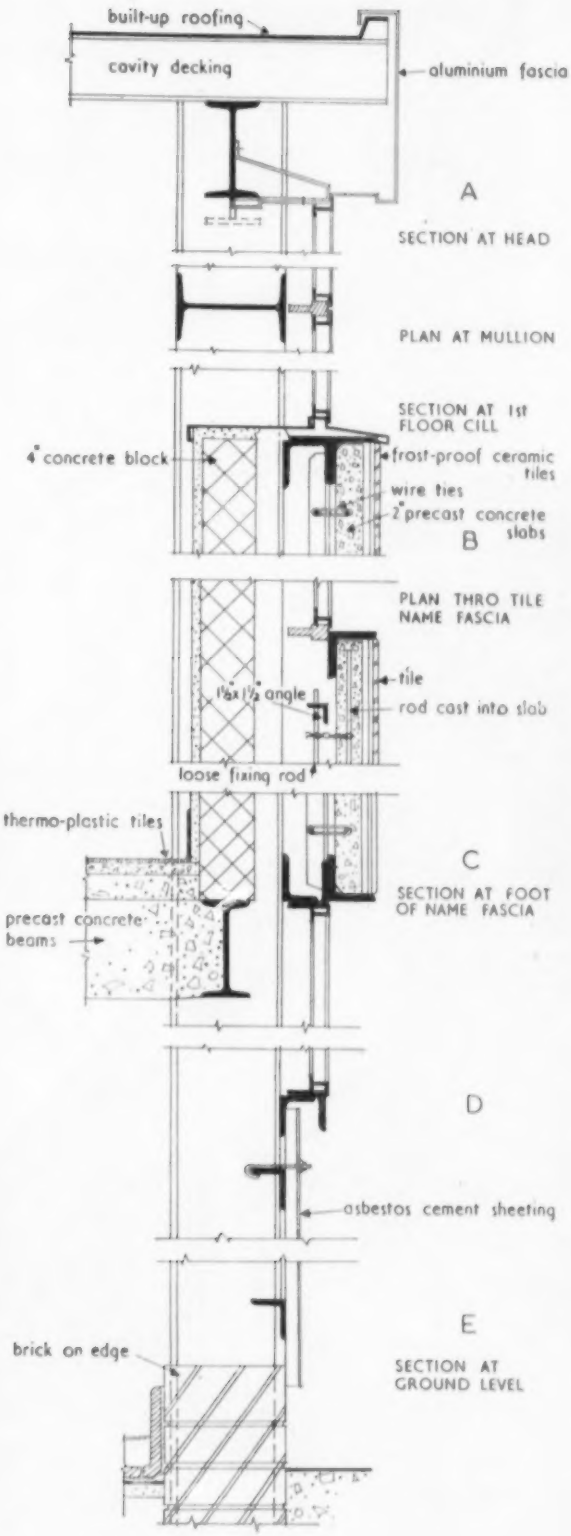


GROUND FLOOR PLAN



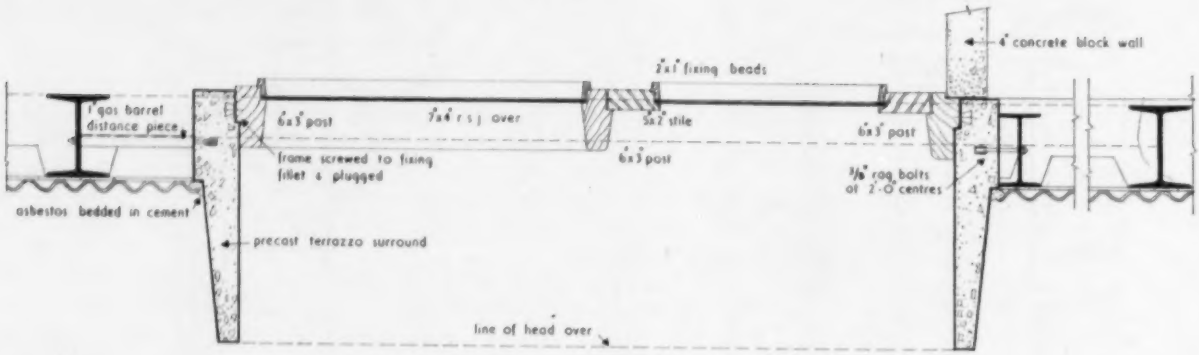
KEY SECTION TO STRUCTURAL DETAIL. Scale: 1in = 8ft

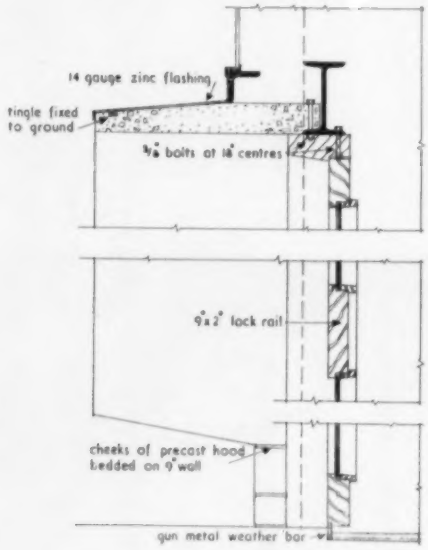
Staircase to offices



STRUCTURAL DETAIL
Scale: 1in = 1ft

Lady Dane Cannery, Faversham




14 gauge zinc flashing
tingle fixed to ground
3/8" bolts at 18" centres
9"x2" lock rail
cheeks of precast hood bedded on 9" wall
gun metal weather bar

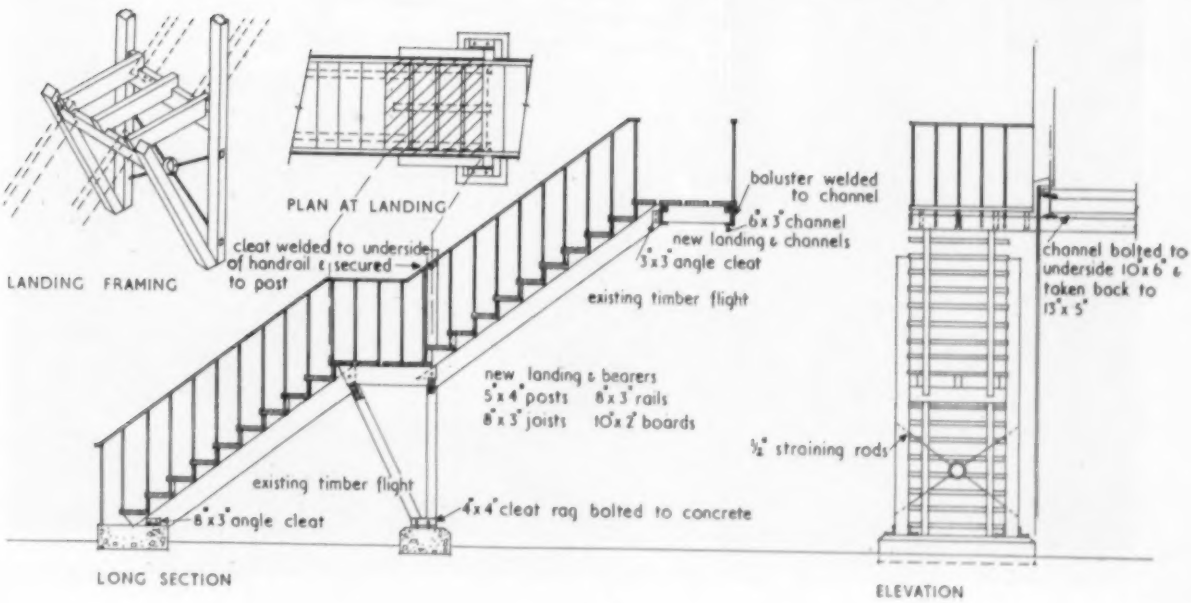
Detail of surround to office entrance which is shown on the left.
Scale : $\frac{3}{4}$in = 1ft

Sub-contractors:

Aluminium Fascia: Henry Hope and Sons, Ltd. *Asbestos Cladding:* Roberts Adlards, Ltd. *Bricks:* Eastwoods, Ltd. *Cloakroom Fittings:* A. J. Binns, Ltd. *Door Sliding Gear:* E. C. Henderson, Ltd. *Exterior Planting:* Duruz and Sons, Ltd. *Fascia Lettering:* Morris Singer, Ltd. *Felt Roofing:* William Briggs and Sons, Ltd. *Fencing:* Peerless Fencing, Ltd. *Floor Tiles:* Wheatley, Ltd. *Hardware:* W. N. Froy and Sons, Ltd. *Internal Plants:* Elm Garden Nurseries, Ltd. *Kitchen Equipment:* Gardiner and Gulland, Ltd. *Lavatory Cubicles:* Henry Hope and Sons. *Main Glazing, North Light Glazing:* Henry Hope and Sons. *Paints:* Docker Bros., Ltd. *Partitions:* Stramit, Ltd. *Plastic Tiling:* Neuchatel Asphalte, Ltd. *Precast Floors:* Concrete, Ltd. *Sanitary Fittings:* Alfred Olby, Ltd. *Sewage Disposal Apparatus:* Hartleys, Ltd. *Slate Flooring:* Setchell and Sons, Ltd. *Steel Protection:* C. and T. (Pyrok), Ltd. *Structural Steelwork:* Redpath Brown, Ltd. *Suspended Ceilings:* G. C. Horsburgh, Ltd. *Wall Tiling and Fascia Tiling:* Carters, Ltd.

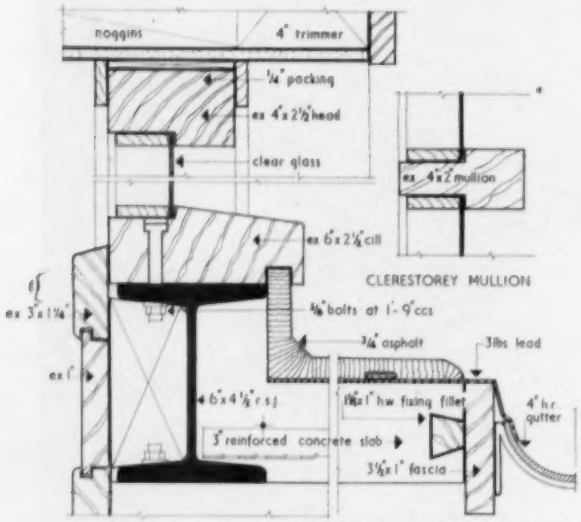
Canteen

TIMBER STAIRCASE TO UNLOADING BAY. Scale: 1in = 4ft.

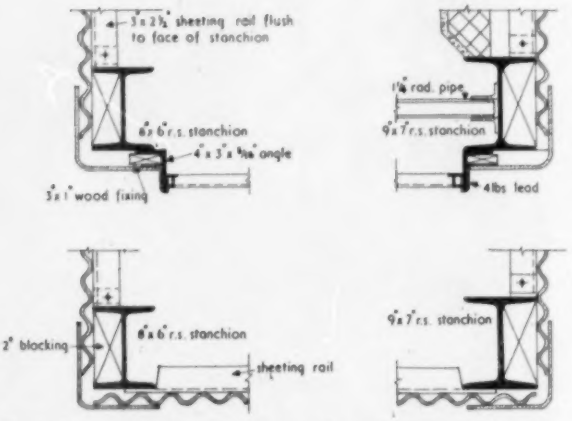


Lady Dane Cannery, Faversham

architects: ROBERT PAINE & PARTNERS.
Robert Paine, Charles Wright, Michael Crux, Patrick Brown (Co-ordinator)



Detail of clerestory light and eaves to the small flat linking the main building to the staff cloakrooms.



Typical corner details at ground and first floor levels showing the fixing of the cladding and patent glazing.

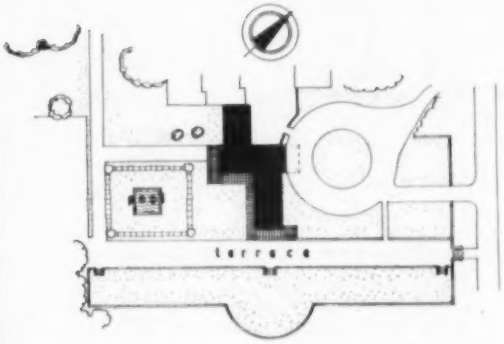
Factory Manager's Office

Sandling Park Farm

NEAR HYTHE, KENT

ARCHITECT: E. D. JEFFERISS MATHEWS, O.B.E., F.R.I.B.A.,
of J. DOUGLASS MATHEWS AND PARTNERS

CHIEF ASSISTANT: R. S. POOLE, A.R.I.B.A.



THE original mansion house of Sandling Park, a large building designed at the end of the 18th Century by Joseph Bonomi, was totally destroyed by enemy action during the war. The Home Farm, a building of some 10 bedrooms, was also totally destroyed. The owner, Major A. E. Hardy, obtained a building licence in 1949 to build in place of these two houses a small house and a cottage.

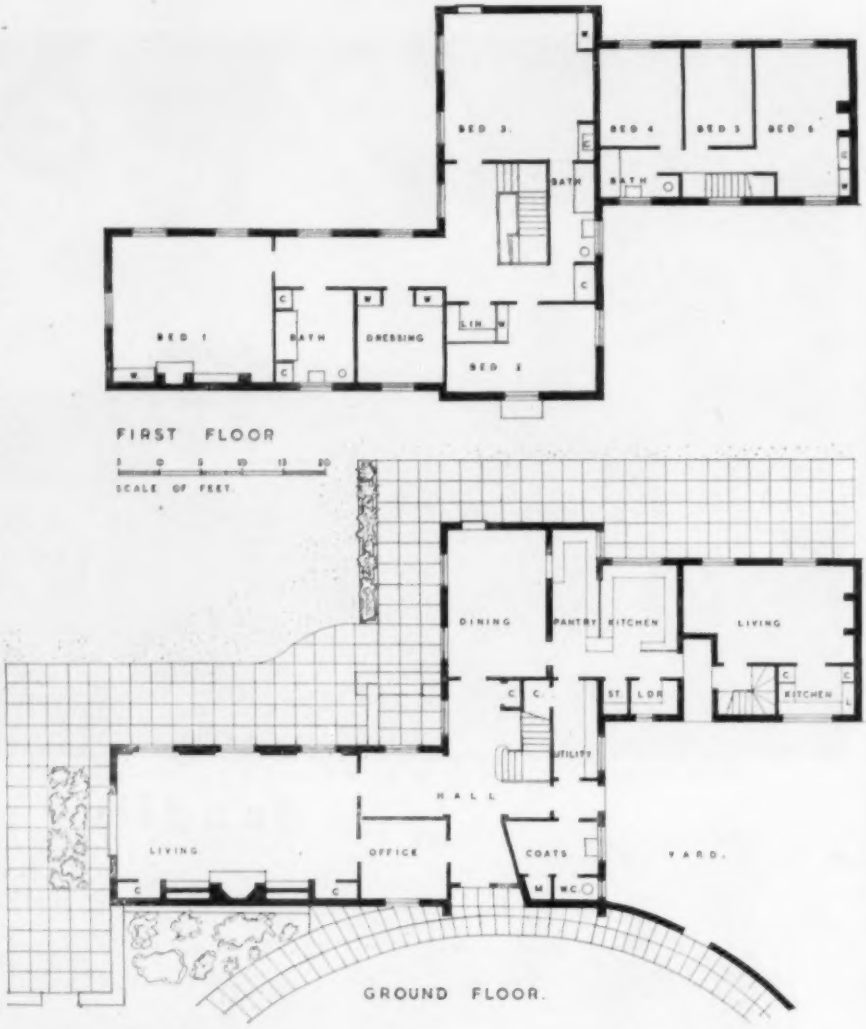
Top photo: The entrance front.

Right: View from S.W.

It was decided to build these as a combined building on the site of the original mansion house and as far as possible to relate the new building to the surrounding lawns and terraces of the original house. The problem confronting the architect was, therefore, to design a building of comparatively small size in such a manner that this relationship was achieved—for example, in relating the new building to the central feature of the terrace, the lily pond, the drive, and to a lesser extent the remaining adjoining cottages and stables, the latter being a prominent feature along the main entrance drive to the house.

Basis of Design and Siting

This problem was solved by a narrow house of three wings in the form of a "Z." By this means the various focal points could be related to the building, such as the "picture" window in the living room being on the centre line of the terrace feature, and the side windows of the same room axial to the lily pond. The off-centre small "picture" windows of the dining-room and bedroom above being axial with another existing garden feature. Owing to the difference in the size of the new house from the original it was not possible to make use of the original foundations nor the extensive cellars of the original building. These were, in fact, a liability which necessitated certain costs being sunk in foundation beams to span parts of the old cellars. It was necessary to extend the drive area to reach the new house. The design includes provision for future extension by extending the first-floor gable end over the main entrance in the form of a *porte cochère*. The owner of the house is a well-known horticulturist and the large areas of walling unbroken by windows were provided to enable certain particular plants and shrubs to be planted so that in the future, when these have matured, there will be a closer relationship between the building and surrounding ground.



Construction

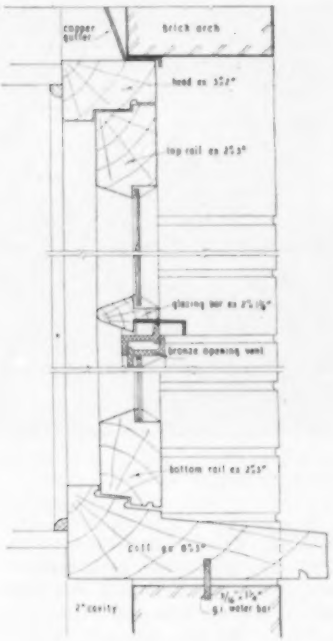
The structural form was governed by the shortages of steel and timber prevailing at the time the building was being erected.

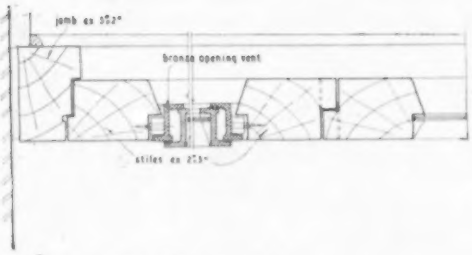
The general form is weight-carrying cavity brick external walls and solid structural internal cross walls. The first floor is a proprietary pre-cast concrete joist and *in situ* concrete overlay

[Continued on page 194

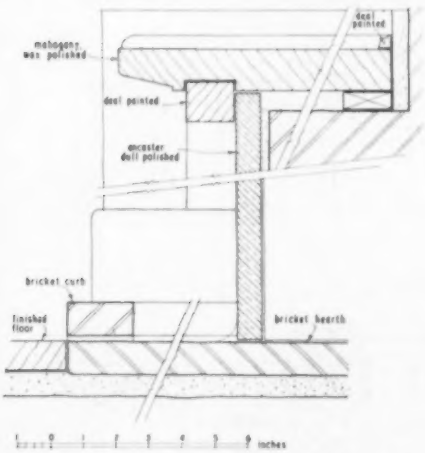
Main entrance

S.W. elevation showing "picture" windows





Window details

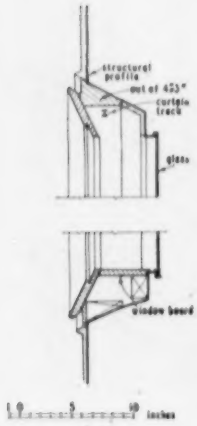


Section through fireplace

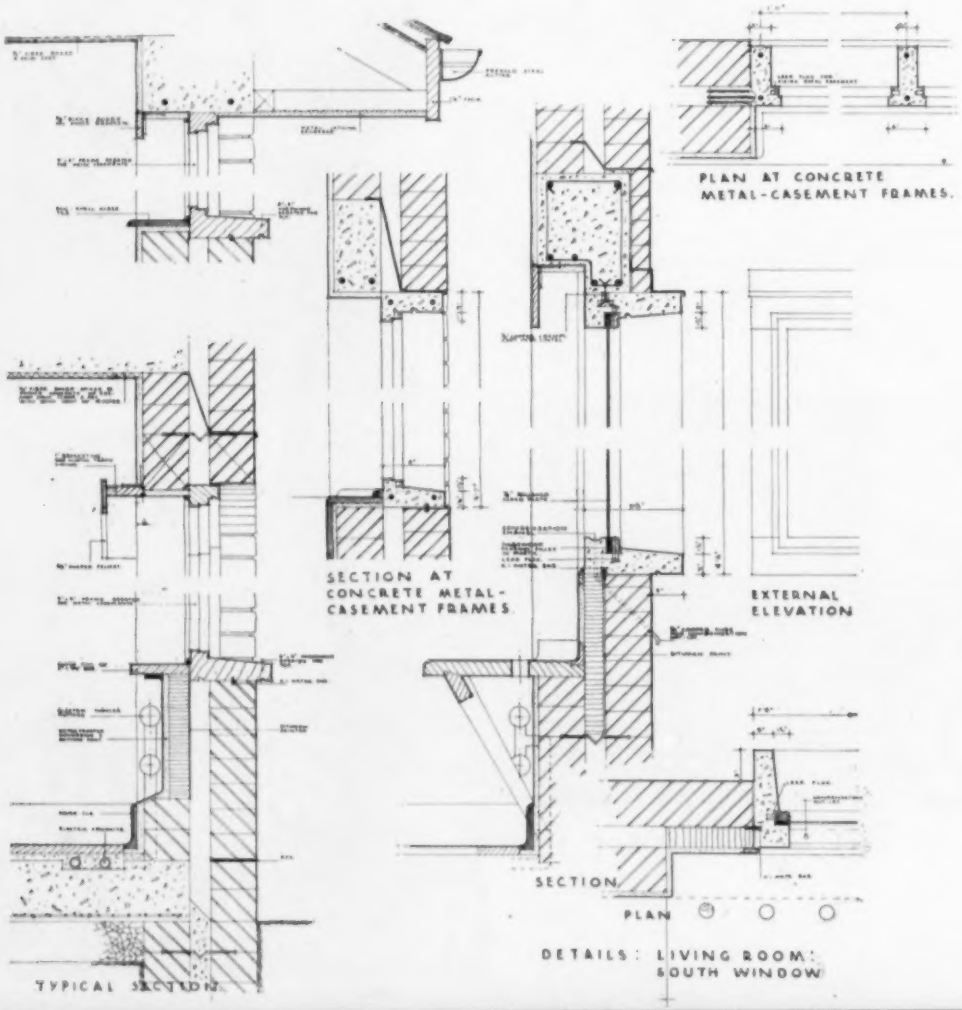
***Top photo:** The dining-room (details of the "picture" window are shown on page 195).*
***Middle:** The living-room fireplace.*
***Bottom picture:** The foot of staircase (details on page 195).*

Exterior and interior of living-room showing South window (details below).

construction. The roof structure is timber of various purpose-made truss forms to meet varying requirements of span. Non-structural partitions are wood wool. Plastered ceilings are fibre board panels suspended from the precast floor joists and roof ties and set with a skim coat of soft lime plaster. Attention to sound absorption and the reduction of sound transmission was a feature of the construction. Plumbing was almost entirely internal. In areas where there was a concentration of pipework, such as over the utility room and pantry, demountable hardboard ceiling panels at a slightly lower level than the general ceiling height have been used to conceal the plumbing. This has enabled the traps of the lavatory basins in the rooms above to be placed within this floor space so that they are out of sight in the rooms. By this means a "clean" appearance has been achieved without incurring costs, which would have been prevented by the building licence limit, in the more usual method of



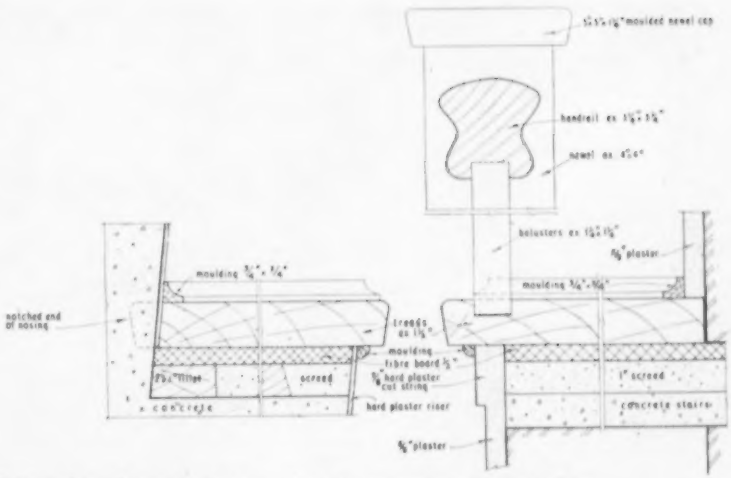
Detail of internal surround to West "picture" windows.



enclosed plumbing spaces below lavatory basins. The exposed floor joists above the main entrance are the actual precast concrete members of the floor construction.

The segmented arches of the ground-floor windows are structural, both inner and outer skins being arched, and thereby saving in steel for reinforced lintels was achieved. The first-floor windows are placed directly under an *in situ* cast concrete roof plate, one of the few items involving steel, and in this case, serving two purposes, it represented an economical use of this material.

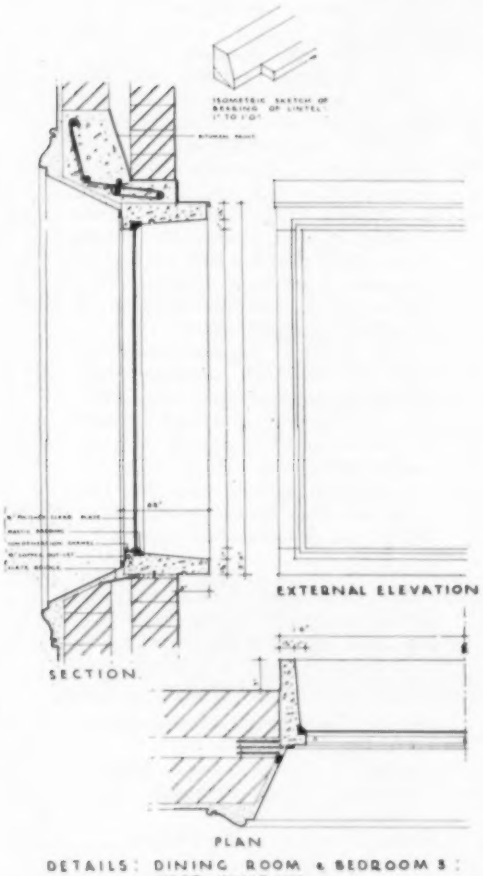
The facing bricks are red—at present rather "hot" in tone, but they were chosen to blend, when weathered, with the brickwork of the predominant stable blocks referred to above. The roof is slated, again to blend with the stables and in the tradition of many buildings in this part of Kent, the slates for generations having been barged to the Kentish ports from the west and north of England. The hardwood windows are painted white and all trim, such as the precast concrete surrounds to the "picture" windows, eaves and gable verges are also white. Rainwater gutters and down pipes are in pressed steel and painted grey. The front door was designed from material salvaged from the original building and is in oak.



Section through tread and riser and, right, cross-section through stairs.

Interior Materials and Finishings

The limitations imposed by the building licence necessitated very simple and economic finishings. A good deal of salvaged material was available from the original house, old oak joinery, oak flooring, slate shelving and the original cedar wood panelling, which had been cut from trees on the estate and had been removed from the original house at the outbreak of the war. This panelling was reused as a dado in the dining-room. The oak treads of the staircase, which is *in situ*



DETAILS: DINING ROOM & BEDROOM 3: WEST WINDOW

Slate shelving was reused for paving in the entrance hall.

SANDLING PARK FARM

Reinforced concrete suspended floors: Limpus & Sons.
Bricks: R. Y. Ames.
Roofing: Roberts Adland.
Bronze window night vents: C. E. Welstead, Ltd.
Living-room fireplace: Bratt Colbran, Ltd.
Electrical installation: A. W. Sclater & Son, Ltd.
Sanitary fittings: Pryke & Palmer, Ltd.
Ironmongery: Yannedis & Co., Ltd.
Cork flooring: Catesbys (Prov.), Ltd.
Stainless steel sinks: Pryke & Palmer, Ltd.
Fitted cupboards and kitchen equipment: John Sadd & Sons, Ltd.
Metal balustrades: Alfred Olby, Ltd.
Doors (flush): Wm. Mallinson & Sons, Ltd.

cast reinforced concrete construction, the balusters and other joinery were reworked from the old materials. Slate shelving from the old larders was used for paving in the entrance hall.

The walls generally are plastered with a soft lime plaster, finished with a wooden float and distempered. Window cills and skirtings are tiled. Where salvaged timber was not available the flooring is cork tiles. In the pantry and kitchen the fitted cupboards are generally formed of standard mass-produced units: in these rooms the flooring is rubber.

The large "picture" window in the living-room was designed to give a living landscape picture over the owner's land and so placed and balanced to give a good proportion of land to sky when seen from the normal arrangement of furniture around the fireplace. The wide and long shelf in the fireplace recess was designed particularly to accommodate the indoor flowers and plants which the owner had been accustomed to have in the original house. The fireplace surround is polished Ancaster stone.

The casement windows have no mullions and are secured with espangelot bolts so that, when fully opened, a large unobstructed opening is obtained. To provide limited ventilation when the full opening is not required, one light in each pair has a narrow-section bronze opening night vent in one of the glazing squares.

Services

To reduce labour costs, electricity is used for water heating and space heating. The former is served from two main electric storage-type heaters and the latter by tubular heaters.

Quantity Surveyors: Messrs. Harris and Porter.
General Contractors: Messrs. Hayward and Paramor Ltd., Folkestone.
General Foreman: Mr. Philpott.

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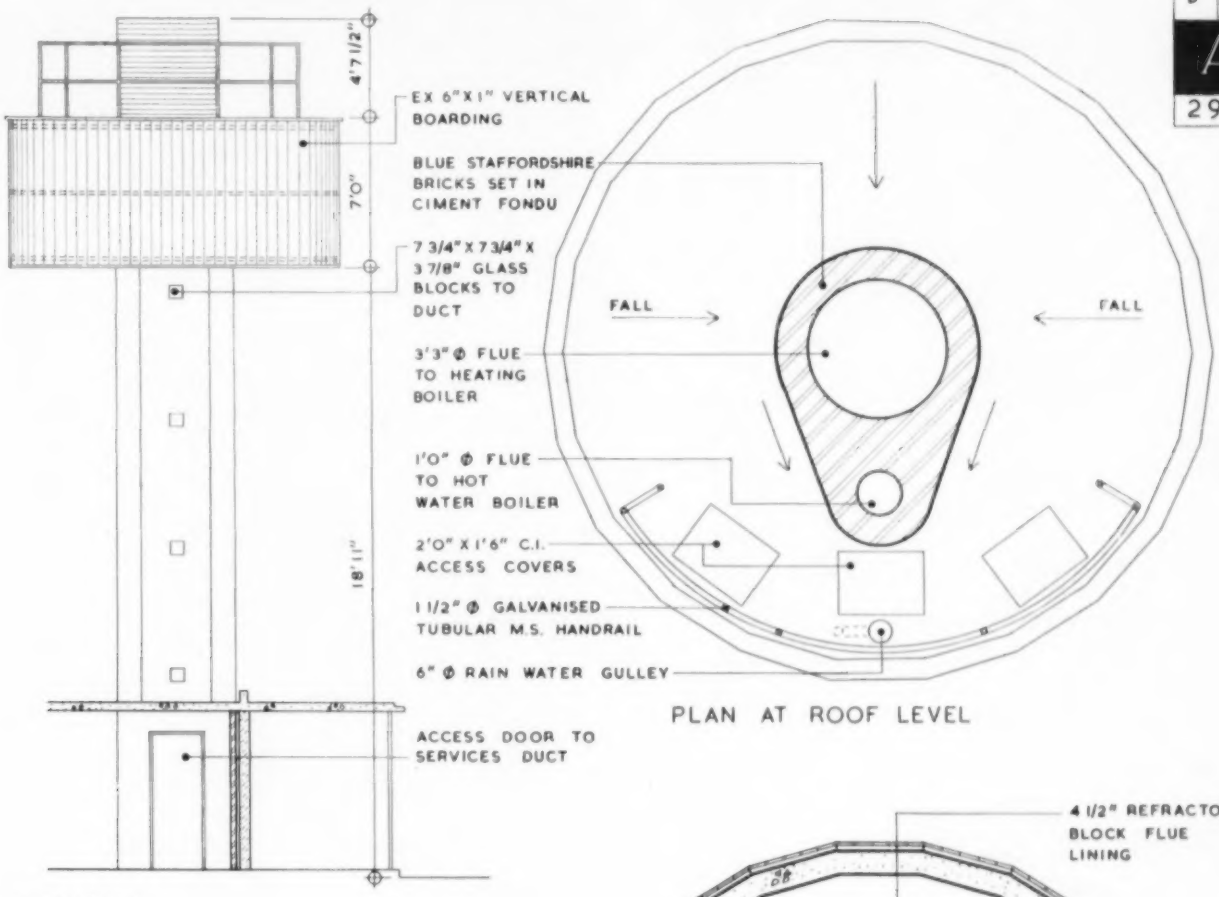
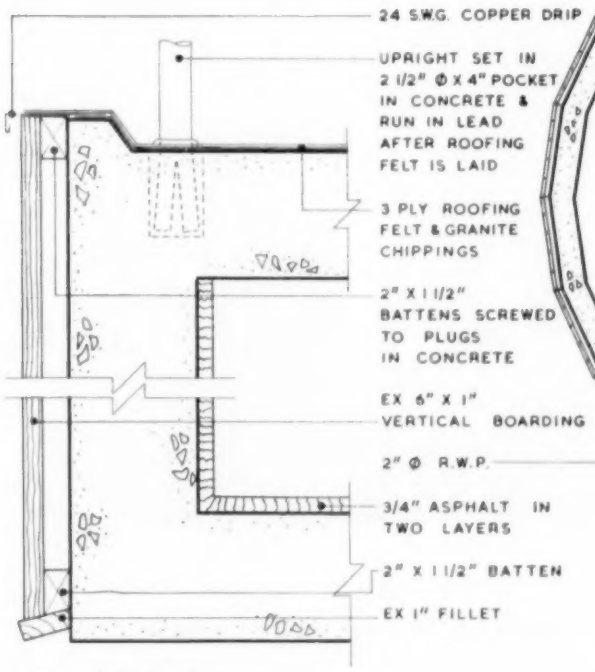
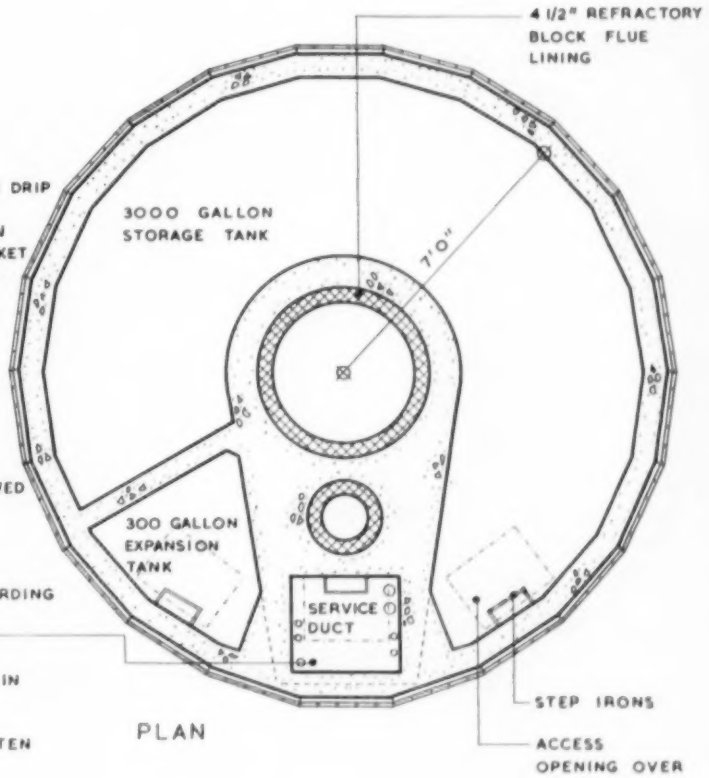

4'7 1/2"
7'0"
18'11"
EX 6"X1" VERTICAL BOARDING
BLUE STAFFORDSHIRE BRICKS SET IN CIMENT FONDU
7 3/4" X 7 3/4" X 3 7/8" GLASS BLOCKS TO DUCT
3'3" Ø FLUE TO HEATING BOILER
1'0" Ø FLUE TO HOT WATER BOILER
2'0" X 1'6" C.I. ACCESS COVERS
1 1/2" Ø GALVANISED TUBULAR M.S. HANDRAIL
6" Ø RAIN WATER GULLEY
ACCESS DOOR TO SERVICES DUCT
FALL
FALL
DCT

PLAN AT ROOF LEVEL

ELEVATION


24 SWG. COPPER DRIP
UPRIGHT SET IN 2 1/2" Ø X 4" POCKET IN CONCRETE & RUN IN LEAD AFTER ROOFING FELT IS LAID
3 PLY ROOFING FELT & GRANITE CHIPPINGS
2" X 1 1/2" BATTENS SCREWED TO PLUGS IN CONCRETE
EX 6" X 1" VERTICAL BOARDING
2" Ø R.W.P.
3/4" ASPHALT IN TWO LAYERS
2" X 1 1/2" BATTEN
EX 1" FILLET

DETAIL SECTION



PLAN

SCALES 1/8" = 1'0"
1/4" = 1'0"
& ONE EIGHTH FULL SIZE

WATER TOWER AND BOILER FLUES, SCHOOL AT RUISLIP

ARCHITECTS: YORKE, ROSENBERG & MARDALL

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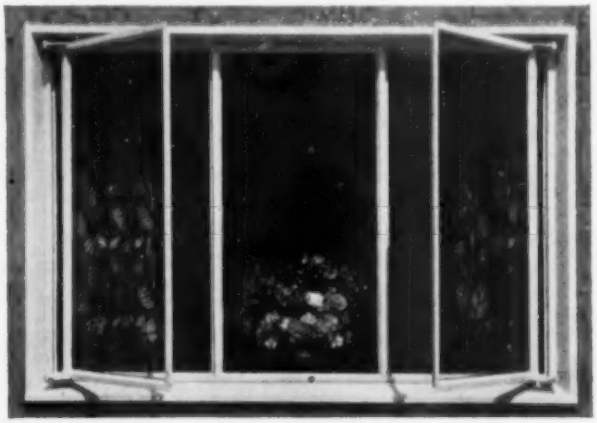

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completely frames and weathers the concrete opening, provides wider views for the tenants, and is a contrasting feature to the wall texture.

Designed for City of Birmingham multi-storey flats now being built in Wimpey "No Fines" Construction. A. G. Sheppard Fidler, F.R.I.B.A., City Architect.

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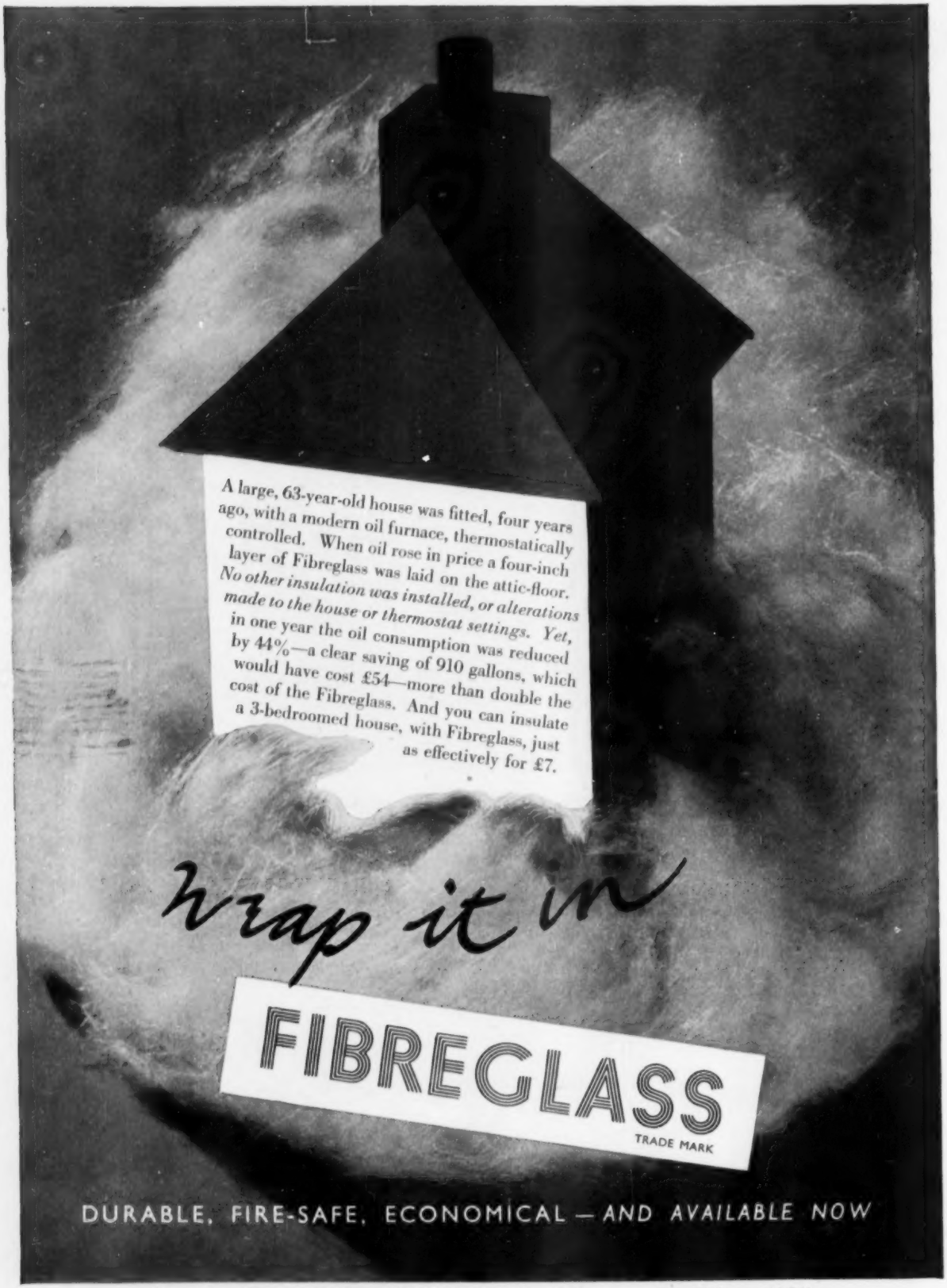
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MINERAL SUBSIDENCE

"OWING to past and present mineral workings the site is not considered safe for building purposes."

"Owing to future workings the N.C.B. cannot recommend the site your Council has put forward for the consideration of the Board for future development."

"The site may only be built upon if the necessary precautions are taken in the foundations and structures of the proposed building as suggested by the Board."

Phrases such as these are quite commonplace in a coal-mining area. They appear at regular intervals in the discussions of local authorities in connection with housing sites. Little is said if the report from the N.C.B. is favourable but if it is the reverse the discussions are usually reported at length in the local paper, if the press is allowed in the particular area to attend committee meetings.

References such as these appearing in the papers raise doubts in the minds of private architects as to the action they should take on behalf of private clients. I have found from experience that private architects look at the problem from two points of view. A minority—I am pleased to say it is a minority—ignore the question and live in hope that the building will not suffer any structural damage. To cover themselves they sometimes strengthen the foundations, just in case, without making enquiries as to whether this additional and costly precaution is really necessary at all or, alternatively, whether the site is unsafe regardless of what structural precautions they might take. Presumably they consider fees before their client, being frightened that, if the site is found to be unsafe or additional precautions are necessary, thereby adding to the cost, their client will abandon the project.

The majority, quite rightly, consider the client and also their reputation and enquire into the question of stability, regardless as to whether it may mean the loss of a commission. Just consider, if an architect omitted to investigate the mineral position and shortly after a building was completed cracks appeared in the structure and it was then discovered that no enquiries had been made into the question of the safety of the site. His client would, in my estimation, have every reason for considering him an incompetent adviser. How far, if at all, a client could hold an architect responsible in law I do not know but his comments to his business acquaintances would, I feel certain, be of a nature which would be adverse to the architect's future prosperity within that area.

If you are doubtful as to whether the commission you are asked to execute falls within an area where there is at present coal or perhaps what is more important, where coal may be worked in the future, I would suggest you contact the Planning Authority for the area, as they should be able to assist you in this respect from their records.

If you obtain a commission in a coal-mining area and are at all in doubt about the stability of the site or feel that you should seek expert advice, you can engage the services of a mining engineer, although now that the mines have been nationalized there is only a limited number available. I should point out that under the Coal Industry Nationalization Act, 1946, Section 52, and Statutory Rules and Orders, 1946, No. 1675, provision was made for a private person to inspect the plans of workings under a site, on payment of a charge of 2s 6d per plan per day, but unless you have had training as a mining engineer you would, I feel sure, learn little from your inspection. I would, therefore, advise you, with the consent of your client, to engage the services of a mining engineer, particularly if the project is of any magnitude. If you are unaware of a private surveyor I would suggest you write the Secretary of the Royal Institution of Chartered Surveyors.

Why not go direct to the National Coal Board and ask their advice on the stability of a site? This, on the face, appears the logical answer. There are a number of reasons why I would not advise this course. First, the Coal Board Mining Engineer, however impartial he tries to be, is quite naturally bound to place the interest of the Coal Board first and he is going to err on the side of safety in the Board's interest, particularly if there is any likelihood of the Board being responsible for the cost of repairs necessitated by subsidence damage. Secondly, as there is no scale of charges for this work, he would be giving his expert advice free and I know from experience that the Board's mineral engineers are extremely busy men and would not welcome this additional burden.

Your independent mining engineer may suggest in his report on the site that, to prove the safety of the site, if old workings are suspected to exist of which the N.C.B. have no record, bores be sunk near the outcrop to prove whether or not coal has been worked in the past by what is commonly known as the stoop and room or pillar and stall method.

The general principle in this method of working (stoop and room) is to leave pillars of coal to support the surface. In very early workings, however, the pillars left were often small, having a cross-sectional, or supporting area of little more than 50 square yards, and sooner or later they are bound to collapse.

If the pillars have already collapsed, the voids of the early excavations will have disappeared. The surface will have subsided and may be comparatively safe from further movement. If the pillars are still standing, and the strata above them is relatively weak—consisting of soft shales and clay—additional surface weight might bring about an unfortunate subsidence. Even without additional surface weight subsidences in the form of large or small pot-holes may appear at any time and especially during an excessively rainy season.

If there should be strong strata above the pillars, such as a bed of sandstone, say 30ft or more thick, then there will be no danger from pot-holes. Any subsidence that does take place will be steady and gradual, over the whole undermined area, as the pillars of coal slowly disintegrate and the bridging platform of strong strata imperceptibly sinks.

Dwellinghouses can be erected on sites over these strong beds of strata with little risk of trouble because of the comparatively shallow early workings. It would be inadvisable, however, to use such sites for industrial or valuable, large buildings. But, before a proper decision can be made about the suitability of a site over old shallow workings for any building purpose, the site, as I have said may be suggested by a careful mining engineer, would require to be proved by bore holes.

This can be quite an expensive undertaking but the advice should not be ignored. It is advisable to approach the N.C.B., who have had considerable experience in boring in connection with their opencast working, to supply you with the names of reputable firms who will carry out this work. They will also advise you as to the depth the bores should be sunk. Your mining engineer will be able to translate the result of the bores into a language which is understandable regarding the load-carrying capacity of the site.

Having chosen a firm I would suggest you ask for an estimate. This will be given in cost per foot of bore but, having obtained advise on the depth to which you should go, you will be able to estimate for the benefit of your client what it will cost approximately to prove the safety or otherwise of the site.

You may well ask whether, in a coal-mining area, it is necessary in every case to obtain a mining engineer's report. If the majority of your work is likely to be in such an area the whole problem of mineral subsidence is worthy of careful study in the interest of both your clients and your own satisfaction from a business point of view.

Whilst it is dangerous to generalize in connection with this unstable problem, you may well decide that, for example, if the building your client proposes to erect is within a densely built-up area and the majority of the buildings fall within the class for which the N.C.B. are responsible for repairs, it is no doubt safe to advise your client to build without consulting a mining engineer, since it is obvious that the N.C.B. will not undermine properties

unless they are of the opinion that the depth of their workings is so great that subsidence will be of a minor nature.

If your practice is within a coal-mining area I would advise you to purchase a set of geological maps, as from these you will be able to trace the outcrops of the seams and in some cases the slope of the seams. Pay special attention to the position of the outcrops, as it is often within the area of these that structural damage from old shallow workings (in some cases of which the N.C.B. have no records) occurs.

Do not be misled by the fact that a particular seam of coal, which you are aware is being worked, is at a considerable depth and you therefore feel it can be discounted as far as subsidence is concerned. Subsidence depends on so many factors, such as the geological formations between the seam and the surface and the number of worked or likely to be worked seams and their thicknesses. If in doubt I would advise obtaining the services of a mining engineer.

In addition to future subsidence, many architects in coal-mining areas are asked to advise clients regarding claims for damage to property, caused by mining subsidence. Under the Coal Mining (Subsidence) Act, 1950, the Act generally requires the N.C.B. to carry out or pay for the repair of structural damage to small dwelling-houses, if it is thought that the damage has been due to coal-mining subsidence. I used the phrase "small houses" but in actual fact the damage may be to houses, flats, maisonnettes or parts of buildings which are used as dwellings but which must not have a rateable value (subject to review) greater than £32 in England and £52 in Scotland. Damage to any dwelling-houses above these rateable values or any other property, does not qualify for repairs or payment.

If you are asked to make a report for a claim, the repairs that the Board are required to carry out include, in addition to the structural repairs to the dwellinghouse, repairs to any outhouse, fence, gas, water pipes or drains. The Board will also make good the decorations of the repaired parts of the premises so far as they may be necessary and reasonable.

It should be noted that the Coal Board are required to carry out or pay for reasonable repairs. They are not obliged to completely renew or restore damaged property.

Notice of damage should be given on a form obtained from any office of the N.C.B. and should be returned as soon as possible.

As subsidence is an action which may continue over quite a lengthy period, the N.C.B. may inform the owner that they will postpone permanent repairs until they think that these can properly be carried out. The N.C.B. must, however, in the meantime, carry out any urgent or temporary repairs, or pay for them if the owner has had them carried out. In this connection, however, you must advise the N.C.B. if you are proposing, and before you actually carry out, immediate essential repairs. If the property is in a very bad state after the damage, the N.C.B. may pay for the loss in value of the property instead of carrying out repairs.

Whilst subsidence is a specialized subject, it is one which private architects in a coal-mining area would do well to study more carefully in the interests of their clients.

M. E. TAYLOR

LIBRARY NOTES

The Restoration of Old Houses

By Hugh Braun, F.S.A., F.R.I.B.A. London, Faber & Faber, 16s.

THIS is a very useful book, packed with valuable information, thoroughly indexed and provided with a glossary of technical and architectural terms. It is well produced and illustrated with 14 excellent photographs of charming old buildings.

Unfortunately, in the first chapter the author seems to go out of his way to be rude to the younger generation of architects. This is a serious tactical error because if his book is to have any beneficial results it can only be by enlisting the sympathy and understanding of the architects he so mercilessly attacks. An architect or student picking up the book by chance and glancing through the introductory pages would almost certainly feel that it contained nothing but the grumblings of a prejudiced person. As a conscientious reviewer I was obliged to read on, and in the later chapters found much useful advice, obviously based on experience and study. I would strongly recommend all architects to persevere and either to start at Chapter Two or to ignore such unjust generalizations as this on page 14: "The modern architect has hardly time for æsthetics—certainly none for antiquities"; or page 15: "The antiquaries fight for us, but are hampered by lack of technical assistance, especially from the architectural profession whose interests are generally on the side of the Philistine."

Statements of this kind are unfair to the vast majority of architects and calculated to prejudice them against the book, and they are also likely to discourage the employment of architects by the owners of ancient buildings. There is, in fact, a genuine interest in historic buildings among students in the more progress-schools of architecture, and this interest is on the increase now that design in historical styles is no longer forced upon reluctant pupils. Practical experience of restoration work is naturally difficult to obtain, and it is to the old hands that the young architect will look for advice, but the student will not be encouraged to take advice, however good, if it is accompanied by unjustified abuse.

The only other serious criticism that can be levelled against this book is the choice of illustrations. Mr. Braun says that the antiquary "may be seriously hampered in his investigations through ignorance of the system upon which buildings are designed and constructed," and a little later he says: "The amateur fashion in which the historical side of architectural research is conducted leads students to concern themselves only with æsthetic or external aspects of the subject. Ignorant of buildings, they are unable to treat buildings as such." Yet the illustrations, charming as they are, are concerned only with appearances—and external appearances at that. There is not a single photograph illustrating the methods of construction and processes of restoration discussed in the text, and not a single diagram to explain the technical processes described.

The value of this book both to the architect and to the amateur would be vastly increased if in a future edition it could be illustrated with plans, sections and details, rather than with picturesque but largely irrelevant photographic studies. Its value as a reference would be further enhanced if the paragraphs referring to particular aspects of construction were headed or indicated by marginal references in the manner of a specification. If at the same time the First Chapter could be rewritten in a more tactful fashion Mr. Braun's work would without doubt become a standard reference book for those who have the duty and privilege of preserving the valuable old buildings that still remain to us.

V. BRANDON-JONES.

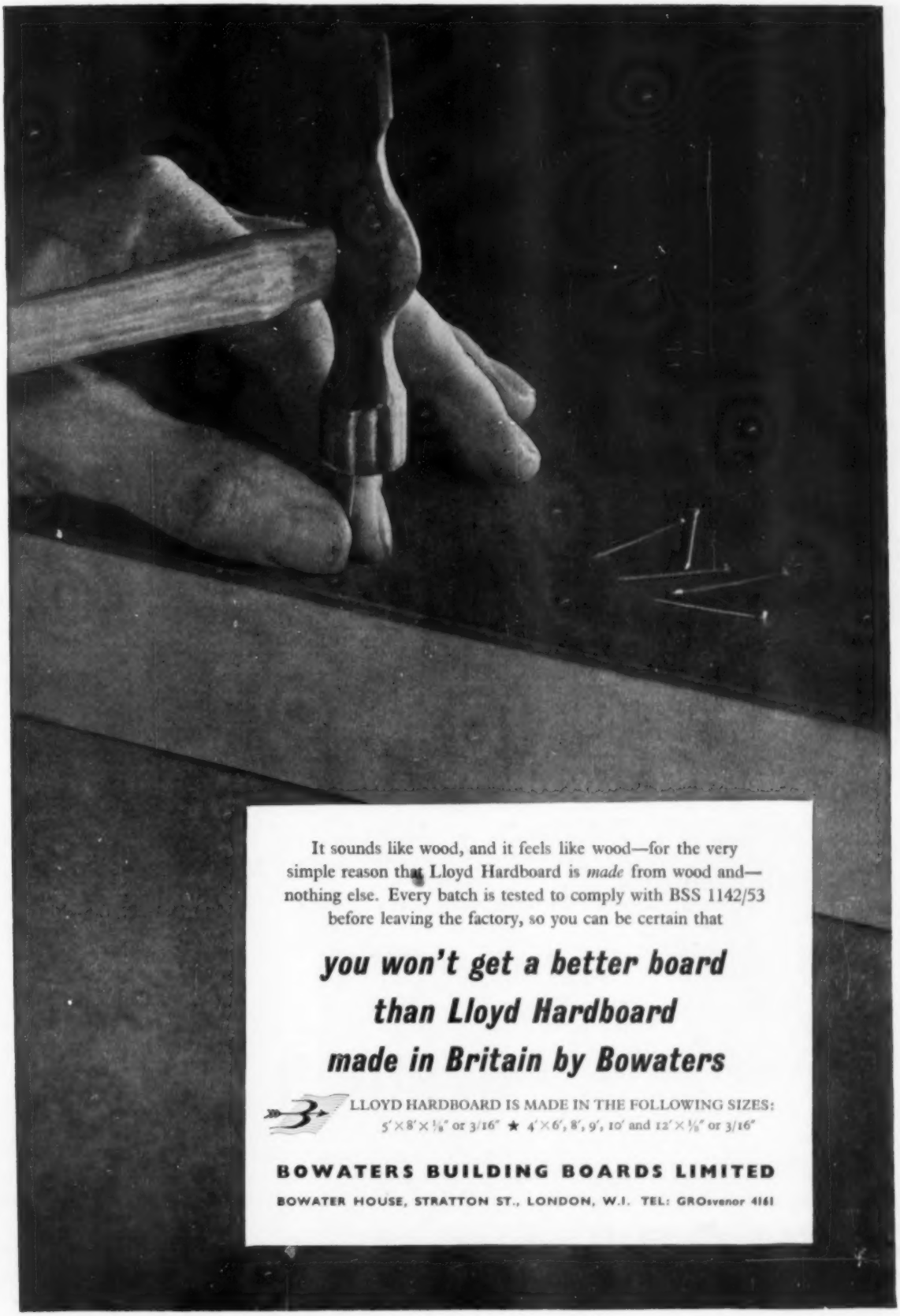
Practical Design of Simple Structures, Vol. 2

By Dr. David S. Stewart, M.I.C.E. Constable. 25s.

THIS second volume of this series deals with columns, trusses and bridges. The reception this volume has received since it was first published in 1929 may be judged by the fact that it is now in its third edition and has, in addition, been reprinted three times. In this third edition the text has been rewritten where necessary, to conform with the latest specification. If a comparison is made between this edition and the first, it is evident that a considerable amount of new material has been added.

The author has attempted a difficult task in connection with the explaining of structural design, namely, that of explaining how the principles he expounds can be used to apply to various sizes and designs. The usual practice is to give an example and leave the student to glean from this, if he is able, how to adapt it to his particular case.

The text and calculations have been so presented that they can be readily understood and appreciated. A most comprehensive volume.



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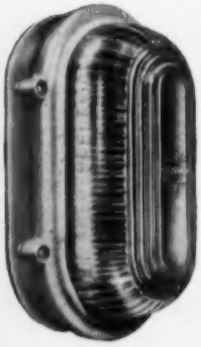

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Precast and Prestressed Concrete Construction

consulting Engineer:
E. W. H. GIFFORD
B.Sc., A.M.I.C.E.

The new workshop at the Bermondsey premises of the Liverpool Artificial Stone Co., Ltd., makes use both of units cast from standard moulds and of prestressing in its construction. The precast units used for this building are designed to allow for considerable flexibility in arrangement.

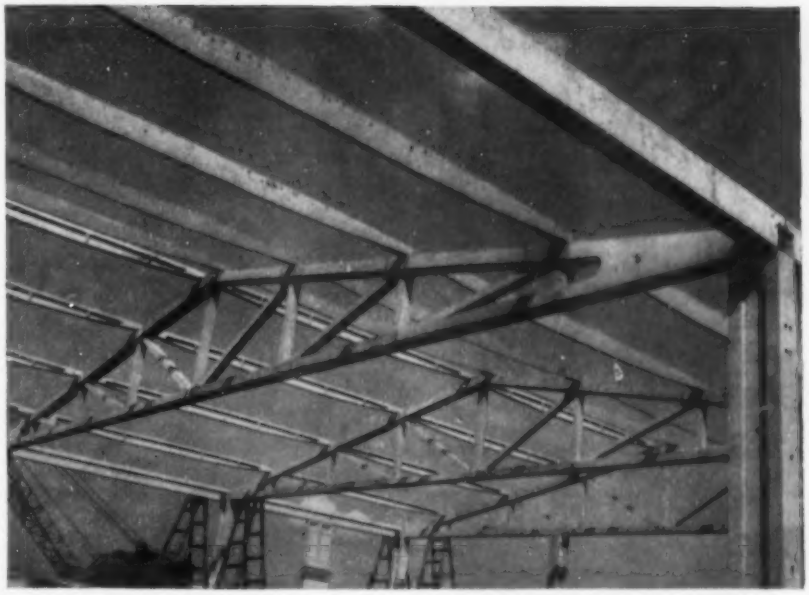
The workshop is 75ft long by 45ft wide. Its frame consists of precast, prestressed concrete trusses supported on columns at 15ft centres. Precast, prestressed concrete purlins carry the asbestos cement roofing. The Gifford-Udall-C.C.L. prestressing system was used in both the trusses and the purlins.

The 45ft trusses are each made up of fifteen precast units. Some of the units were cast as separate triangles of different sizes, each including a section of the bottom boom, an upright and a raker. The top boom was precast in short, straight lengths which extend from one upright to the next. The centre upright was also precast as a separate unit. Caulked mortar joints were made between all the units, which were then stressed together with a cable passing through a duct in the bottom boom and anchored in precast end blocks.

The precast purlins, which have a "fish-bellied" profile, were post-tensioned with wires passing along a groove formed in the bottom of the web. After stressing was completed the groove was filled with cement mortar. The supporting columns for this workshop were of precast, reinforced concrete. *In situ* reinforced or prestressed concrete columns can, however, also be used with these trusses, or they can be built on to brick piers or any other suitable form of support. The standard units can be combined to cover any span from 16ft to 45ft. For shorter spans than 45ft the same profile of the truss is maintained, but the length of the end blocks and the height of the centre upright are varied, and certain of the larger triangular units can be omitted. The trusses are designed to carry asbestos cement sheets or wood-wool slabs.

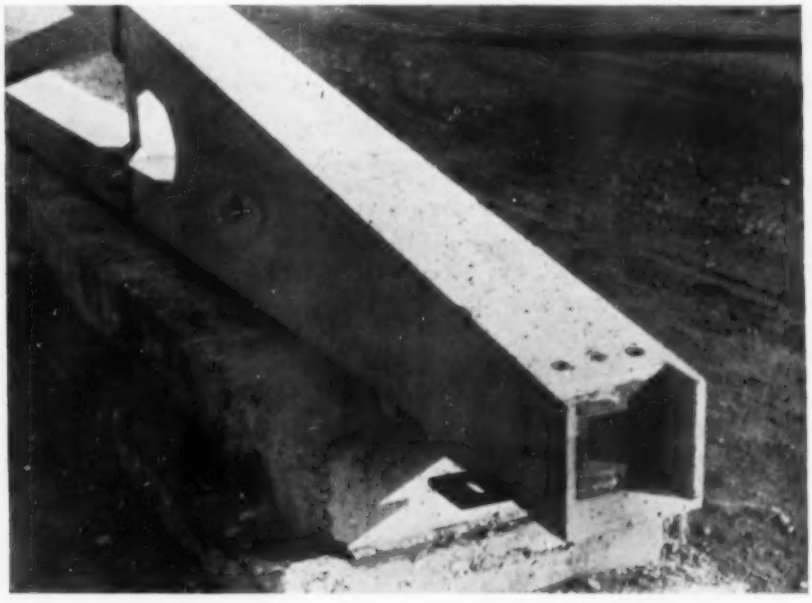
Successful tests have been carried out on two of the trusses, which failed at exactly the calculated ultimate load of 17 tons for each truss. The cost of the complete framework for this building was approximately 3s per square foot of floor covered.

The precast units are manufactured by the Liverpool Artificial Stone Co., Ltd., who also constructed the workshop.



Completed structure before cladding

Post-tensioning a purlin



Detail of truss end

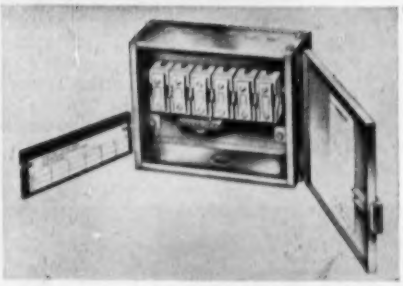
MOSAICS

FITTINGS
SANITARY
C2/20

A powder-type hand cleanser, designed for use in industry, by Borax Consolidated, Limited. Known as Boraxo, the cleanser, which has proved popular in the U.S.A., is claimed to combine the effectiveness of a heavy duty cleanser with the mildness of a baby soap, and will efficiently remove grease, grime and chemicals from workers' hands. The product contains no insoluble or abrasive fillers and the action necessary to remove ingrained dirt, or penetrate oily films, is provided by small grains of borax which slowly dissolve during the hand-washing operation. Boraxo is used from a vitreous-enamelled steel dispenser, a few taps of the plunger providing enough powder for each wash.

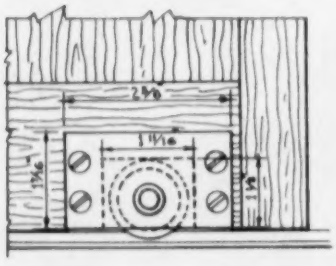
PLANT
SITE GEAR
E2/15

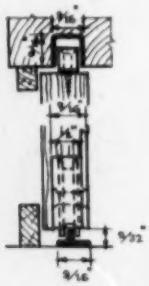
Le Grand, Sutcliff & Gell Ltd., of Southall, Middlesex, are producing the "Le Grand 16/20 Soil Borer," which is based upon a design by the Road Research Laboratory (D.S.I.R.) for highway site investigation. The Soil Borer has been developed by Le Grands primarily for short pile holes. Other uses such as boring for post holes, anchor holes and so forth, are envisaged. The machine is capable of boring holes down to 16 feet with tools of 12in and 18in diameter. The full range of double helical tools is from 9in to 22in diameter. Boring speed is approximately one foot per minute. In operation the tool bores into the ground six inches or so per operational cycle. It then is raised and spun, releasing the soil by centrifugal action. Power feeding lowers the Kelly bar back into the hole, completing the cycle. A safety device is incorporated protecting against any large object struck during the boring. Powered by an 8 horse-power air-cooled diesel engine, the soil borer weighs less than two tons, engine included. It can be mounted either on a trailer or a lorry. Besides vertical holes, it is capable of inclined boring.



SERVICES
ELECTRICAL
ACCESSORIES
B5/43

A new range of sheet-steel fuseboards by Wm. Sanders & Co. (Wednesbury) Ltd., of Falcon Works, Wednesbury, Staffs, known as the "Sandalite" range. It is available for either rewireable fuses or domestic or tag type cartridges with 4, 6, 8, 10, 12, 14 and 16 ways. The cases are supplied with one dual-size knockout at the bottom and one ¾in. conduit knockout for each way at the top. The finish is stoved steel hammer grey.





FITTINGS
DOOR FURNITURE
C3/17

A light sliding door gear by the British Trolley Track Co. Ltd., of Coburn Works, Copperfield Street, S.E.1, designed to fit into the rear face of the joinery and carry up to 50 lb. Known as the Coburn "Cubbard" Door Gear, it consists of (a) a light alloy bottom rail which is drilled and countersunk for screws, 1/6 a foot (b) a bottom roller consisting of a solid brass wheel in a pressed steel cadmium-plated housing, 5/4 a pair (c) hard fibre top guides, 1/- a pair; and (d) the top rail drilled and countersunk, 10d a foot. The rails are available in stock lengths of 3, 4, 5, 6 and 7 feet.

B.S.I. EXPORT PANEL

● The British Standards Institution announces the formation of a small Export Panel consisting of leading industrialists who are actively engaged in the markets of the world. The Panel will advise B.S.I. on how best it can assist export trade.

The volume and range of overseas work connected with standards has increased greatly in recent years, and has become a factor of growing importance to our exporting industries. The development of national standards in overseas countries has a direct bearing on British manufacturers' export activities, and therefore demands that British industry should, through the B.S.I., take a leading part in influencing developments in the international standards field. Fundamentally B.S.I.'s job in this sphere is to limit the necessity for British manufacturers to produce a variety of goods to comply with a variety of different standards in different countries. To enable manufacturers to take account of other countries' standards in their production for export, B.S.I. provides British industry with a complete service of information about overseas standards; and it is equally necessary that in formulating British Standards full account should be taken of the requirements of export markets as expressed in their own standards.

The proper execution of this service to British industry calls for the best guidance which exporting industry can offer to B.S.I., and it is on these levels that the new Export Panel will operate. One practical task will be to suggest ways in which the use of British Standards overseas can be promoted, and how availability of British Standards in all parts of the world can be improved.

Formation of the new Export Panel has been actively helped by the Federation of British Industries, which at a recent export conference urged the need for further attention to these questions. The initial constitution of the new Panel is as follows: Mr. J. L. S. Steel (Imperial Chemical Industries, Ltd.), Chairman; Mr. G. H. Andrew (Under-Secretary, Board of Trade); Mr. D. Maxwell Buist (British Electrical & Allied Manufacturers' Association); Mr. Leslie Gamage, M.C. (General Electric Co., Ltd.; Past President, Institute of Export); Sir Ernest Goodale, C.B.E., M.C. (Warner & Sons, Ltd.; President of the Silk & Rayon Users' Assocn.); Mr. Hector McNeill (Babcock & Wilcox, Ltd.); and Mr. J. W. Ridgeway (Edison Swan, Ltd.), nominated by the F.B.I.; Mr. R. L. Wills, M.C. (National General Export Merchants' Group and London Chamber of Commerce).

● The judging panel appointed by the British Federation of Master Printers and the Council of Industrial Design has now made its final selection of well-designed catalogues for display at the 100 GOOD CATALOGUES exhibition to be held in October at the British Institute of Management, Hill Street, London, W.1.

About 1,500 catalogues were submitted, and all those whose examples have been chosen have now been informed.

● Messrs. Walter Llewellyn & Sons, Ltd., building and civil engineering contractors, announce that the address of their London Office from July 26, 1954, will be: 79/85, Davies Street, London, W.1. Telephone No.: Grosvenor 6407.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

CONTRACT • NEWS •

OPEN

BUILDING

BUCKFASTLEIGH U.C. (a) 1 block of 6 flats and 1 block of 4 flats, Tweenaways Housing Estate. (b) Messrs. Grant and Green, 10, High Street, Totnes. (c) 2gns. (e) Aug. 23.

* * *

BURY ST. EDMUNDS B.C. (a) 1 pair of houses, with garages, on north side of Hardwick Road. (b) Borough Engineer, Borough Offices. (c) 2gns. (e) Aug. 23.

* * *

CHESTERFIELD R.C. (a) 2 pairs of stone houses, Malthouse Lane, Ashover. (b) J. B. Wikeley, Council House, Saltergate. (c) 2gns.

* * *

DAGENHAM B.C. (a) Highways sub-depot, Huntsman Road, Hainault. (b) Borough Engineer, Civic Centre. (c) 2gns. (e) Aug. 23.

* * *

EAST RIDING C.C. (a) Ambulance station, Howden. (b) County Architect, County Hall, Beverley. (c) £2. (e) Aug. 23.

* * *

ESSEX C.C. (a) 2 practical rooms, with ancillary accommodation, at N.E. Essex Technical School, North Hill, Colchester. (b) County Architect, County Hall, Chelmsford. (d) Aug. 14.

* * *

ESSEX C.C. (a) Hutted accommodation at King Edward VI Grammar School, Chelmsford. (b) County Architect, County Hall, Chelmsford. (d) Aug. 14.

* * *

FLINTSHIRE C.C. (a) New sub-divisional police headquarters, Wepre Drive, Connah's Quay. (b) County Architect, Llwynegrin, Mold. (c) 2gns. (e) Aug. 30.

* * *

HALIFAX B.C. (a) Block of shops and flats, Bank Edge Road, Ovenden. (b) Borough Engineer, Crossley Street. (c) 2gns. (e) Sept. 6.

* * *

HEANOR U.C. (a) 28 houses, Loscoe Housing Estate. (b) Engineer and Surveyor, Council Offices. (c) 3gns. (e) Aug. 28.

* * *

HESTON AND ISLEWORTH B.C. (a) 2 conveniences at Denbigh Road Football Ground, Hounslow. (b) Borough Engineer, 88, Lampton Road, Hounslow. (c) 2gns. (e) Aug. 30.

* * *

HORNCHURCH U.C. (a) 1 block of 8 flats, Abbs Cross Lane. (b) Council's Surveyor, Council Offices. (c) 2gns. (e) Aug. 23.

* * *

HUNTINGDONSHIRE C.C. (a) 1 pair of police inspectors' houses, Fletton. (b) County Architect, County Buildings, Huntingdon. (e) Aug. 27.

* * *

KING'S LYNN B.C. (a) 1 3-storey block of 4 shops and 4 flats, together with staff room, stores, etc., Gaywood Park Estate. (b) Housing Architect, Clifton House, Queen Street. (c) Ign. (e) Aug. 21.

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LEICESTER C.C. (a) Erection of a shopping centre on New Parks Estate, comprising 18 shops with housing accommodation above. (b) Messrs. Symington, Prince and Pike, De Montfort House, De Montfort Square. (c) 2gns. (e) Sept. 1.

* * *

LEEDS C.C. (a) 1 block of 12 single women's flats, Moorfield Estate. (b) City Architect, Priestley House, Quarry Hill, 9. (c) £2. (e) Aug. 26.

* * *

LIVERPOOL C.C. (a) Restoration of City Engineer and Surveyor's Depot, Breckside Park, Lower Breck Road, Liverpool, 6. (b) City Engineer, Municipal Buildings, Dale Street, Kingsway, 2. (c) 2gns. (e) Sept. 11.

* * *

LONDON—EALING B.C. (a) Public convenience at "Maytrees," South Ealing Road, W.5. (b) Borough Engineer, Town Hall, W.5. (c) £2. (e) Sept. 11.

* * *

LONDON—WANDSWORTH B.C. (a) 36 flats in 3-storey blocks, Madeira Road, Streatham, S.W.16. (b) Town Clerk, Municipal Buildings, S.W.18. (d) Aug. 18.

* * *

LONDON—WIMBLEDON B.C. (a) Alterations and additions to dressing room accommodation at Commons Extension Land, Robin Hood Lane. (b) Borough Engineer, Town Hall, S.W.19. (c) 2gns. (d) Aug. 18.

* * *

LUTON B.C. (a) Scullery at Osborne Road Special School. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Aug. 27.

* * *

MERIONETHSHIRE C.C. (a) Canteen kitchen at Glyndyfrdwy Primary School. (b) County Architect, County Offices, Lombard Street, Dolgelley. (e) Aug. 21.

* * *

N. IRELAND—BELFAST C.C. (a) Secondary intermediate school for 800 pupils, Ballysillan. (b) Education Architect, 40, Academy Street, Belfast. (c) £5. (e) Sept. 2.

* * *

N. IRELAND—TYRONE C.C. (a) Erection, including site works, of secondary intermediate school for boys and girls in Dungannon, including playgrounds, etc. (b) Messrs. W. H. Stevens and Sons, 13, Donegall Square North, Belfast. (c) 5gns. (e) Sept. 3.

* * *

PORTSMOUTH C.C. (a) Erection of Park Superintendent's house, Northern Parade. (b) City Architect, 1, Western Parade. (c) £1. (d) Aug. 20.

* * *

PORTSMOUTH C.C. (a) Construction of new probation office, Cosham. (b) City Architect, 1, Western Parade. (c) £1. (d) Aug. 20.

* * *

PORTSMOUTH C.C. (a) Rebuilding of the Guildhall. (b) Town Clerk, City Council Chambers, 1, Clarence Parade. (d) Aug. 31.

* * *

RIPON C.C. (a) Supply and erection of a steel-framed building covered with Bigsix Asbestos-Cement Sheeting at the Parking Ground, Ripon. (b) City Engineer, Town Hall. (e) Aug. 25.

* * *

ROCHDALE B.C. (a) 19 bungalows on Brotherhood Estate, and/or 55 dwellings and five garages on Park Road Estate. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) Aug. 20.

* * *

RUGBY B.C. (a) Sports pavilion and clubhouse, Mill Road. (b) Borough Surveyor, Burford House, Church Walk. (c) 2gns. (e) Sept. 8.

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S. O. Rudkin & Co. Ltd.
Plantation House, Mincing Lane, LONDON, E.C.3
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RUGBY B.C. (a) Rebuilding of calf pens at Cattle Market. (b) Borough Surveyor, Burford House, Church Walk. (c) 2gns. (e) Sept. 8.

* * *

SCOTLAND—BATHGATE B.C. (a) 36 blocks (154 houses) at Kirkton and Boghall Site; all trades. (b) Town Clerk, Town Clerk's Office, Bathgate.

* * *

SCOTLAND — CASTLEHILL. (a) Shops at Quarryknowe, Castlehill; all trades. (b) General Manager, Dunbarton Equitable Co-operative Society, Ltd., 32, High Street, Dunbarton.

* * *

SCOTLAND—FORESTRY COMMISSION. (a) House and garage at Camp Wood, half a mile north-east of Cleghorn Station, Lanarks; all trades. (b) Messrs. J. A. W. Grant, 36, Melville Street, Edinburgh.

* * *

SCOTLAND—SCOTTISH SPECIAL HOUSING ASSOCIATION. (a) 20 houses, Bilston; all trades. (b) Scottish Special Housing Association, Ltd., 15-21, Palmerston Place, Edinburgh 12.

* * *

SEDBERGH R.C. (a) 24 houses and 36 flats, with site works, Maryfell Site. (b) T. Maldwyn Jones, 1, Queen's Square, Lancaster. (c) 2gns. (e) Aug. 21.

* * *

SHREWSBURY B.C. (a) Design, supply and erection of precast concrete structural framing, together with purlins, valley beams, etc., for an attested block in New Cattle Market. (b) Borough Surveyor, Guildhall. (d) Aug. 25.

* * *

SLOUGH B.C. (a) Group of 12 concrete garages at Stoke Poges Lane (E) Estate, and group of 10 concrete garages at Priory Estate, Burnham. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Aug. 23.

* * *

SOUTH SHIELDS B.C. (a) 104 houses, Whiteleas Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Sept. 6.

* * *

SOUTH SHIELDS B.C. (a) 20 bungalows and 10 special houses, Marsden Road. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Sept. 6.

* * *

SUNDERLAND B.C. (a) Health centre at Springwell. (b) Borough Architect, Grange House, Stockton Road. (c) 2gns. (e) Sept. 2.

* * *

SUNDERLAND B.C. (a) Demolition of existing buildings and erection of new garage and administrative accommodation at Railway Row Cleansing Depot. (c) 2gns. (e) Aug. 27.

* * *

TETBURY R.C. (a) 6 houses and site works, Avening. (b) Messrs. Gordon Payne and Preece, Rockleigh House, 67, London Road, Gloucester. (c) 2gns. (e) Aug. 21.

* * *

TODMORDEN B.C. (a) Ladies' and gentlemen's public conveniences, Ridgefoot, Todmorden. (b) Borough Engineer, Municipal Offices. (e) 1gn. (e) Aug. 20.

* * *

TOTNES B.C. (a) 26 houses at Sanderspool Cross, South Brent. (b) Engineer and Surveyor, Council Offices, Higher Plymouth Road. (c) 2gns. (e) Aug. 20.

* * *

TUNBRIDGE WELLS B.C. (a) 20 dwellings, Sherwood Estate. (b) Borough Surveyor, Town Hall. (c) 2gns.

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WARE R.C. (a) 1 block of 6 bungalows at Fillett's Farm, Hunsdon, and/or 1 block of 4 lock-up garages at Rectory Close, Hunsdon. (b) Council's Surveyor, 97, New Road. (c) Ign each contract. (e) Aug. 30.

* * *

WEDNESFIELD U.C. (a) 62 dwellings, Ashmore Park Housing Site—Section A. (b) Engineer and Surveyor, 29, Bolton Road. (c) 3gns. (d) Aug. 16.

* * *

WELTON R.C. (a) 8 houses and 4 bungalows, Ingham. (b) Messrs. Wm. Saunders and Partners, 24, Castle Gate, Newark-on-Trent. (c) 3gns. (e) Aug. 27.

* * *

WEST SUFFOLK HOSPITAL MANAGEMENT COMMITTEE. (a) Extension to mortuary at West Suffolk Hospital, Bury St. Edmunds. (b) Messrs. Purcell and Johnson, 64, Bethel Street, Norwich. (e) Sept. 6.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

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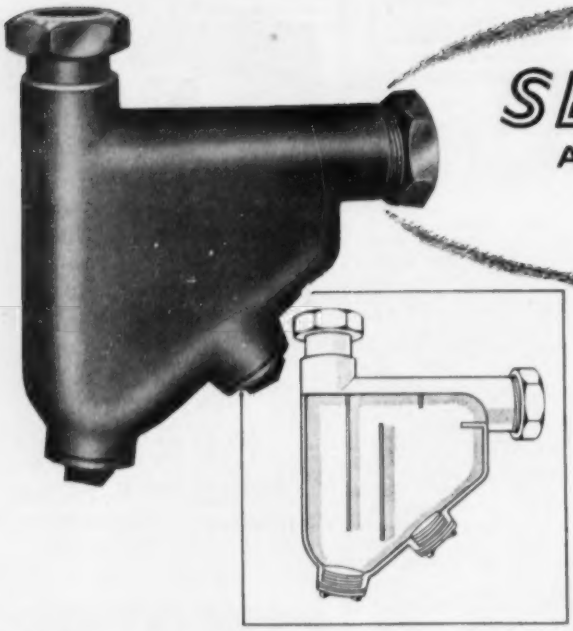

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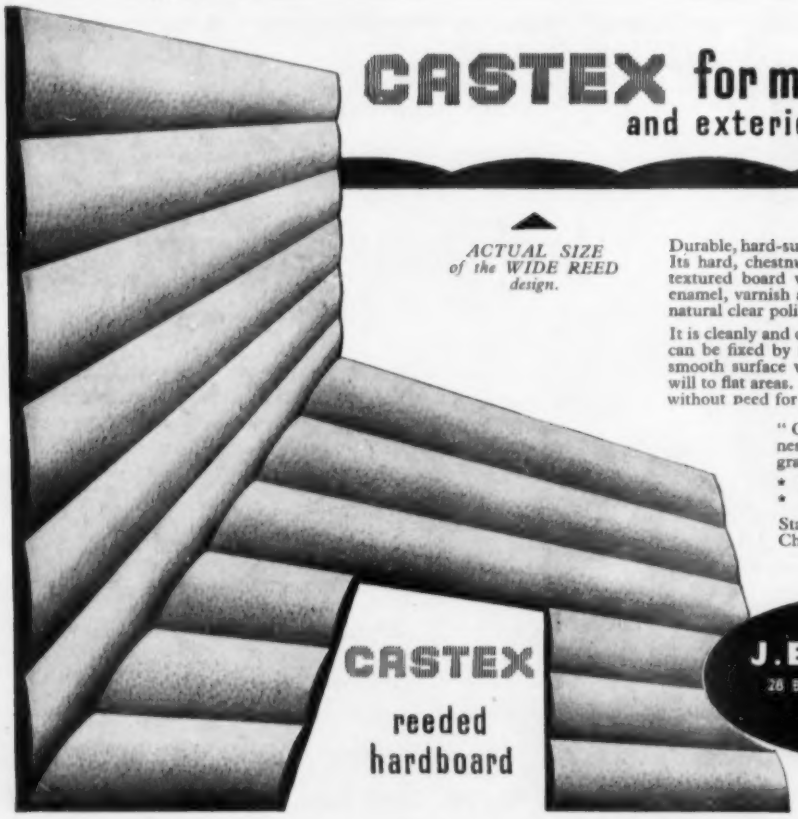

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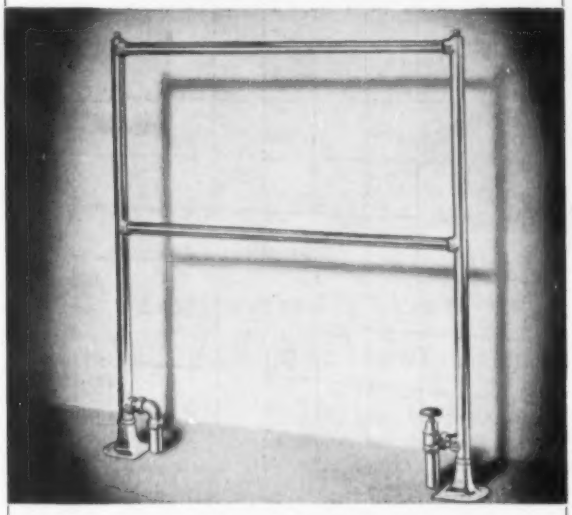

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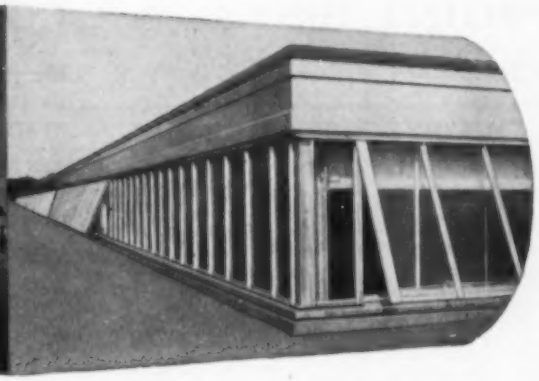

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APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order, 1952.

FLINTSHIRE COUNTY COUNCIL.

APPLICATIONS are invited for the appointment of QUANTITY SURVEYORS (2 vacancies) in the County Architect's Department; salary according to qualifications and experience up to Grade VII/VIII (£735 p.a., rising to £860 p.a.). Applicants should be Members of the Royal Institute of Chartered Surveyors (Quantities) and should be capable of preparing Bills of Quantities, estimates, measuring up and dealing with Contractors' accounts for large contracts, and should preferably have had good experience in the office of a Local Authority. Applications, on a form to be obtained from the undersigned, should be returned by 23rd August, 1954.

W. HUGH JONES,
Clerk of the County Council.

County Buildings,
MOLD. [8205

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

VACANCIES for ARCHITECTS in Schools and Housing Divisions. Salary to £721.

Particulars and application forms from Architect (AR/EK/A/3), County Hall, S.E.1 (374). [0141

THE UNIVERSITY OF LIVERPOOL.

APPLICATIONS are invited for a Leverhulme Post-Graduate Fellowship in Architecture or the Department of Civic Design. The Fellowship, value £500, will be tenable for one year, but may be renewed for a second year at a value of £550.

Applications, stating age, whether National Service requirements have been fulfilled, professional experience and qualifications, and proposed field of research, together with copies of photographs of work, and the names of two referees, should be received not later than 1 September, 1954, by the undersigned, from whom further particulars may be obtained.

STANLEY DUMBELL,
Registrar.
[8212

BOROUGH OF EDMONTON.

APPOINTMENT OF HIGHWAYS AND WORKS SUPERINTENDENT.

APPLICATIONS are invited from experienced persons for the above Established appointment in the Borough Engineer and Surveyor's Department.

Candidates should possess the examination diploma of the Institute of Works and Highways Superintendents or the Testamur of the Institution of Municipal Engineers or other similar technical qualifications, which will enable them to set out Public Works, order stores, plant and equipment and effectively control transport and labour. Experience with a Public Works Contractor will be considered as an additional qualification.

Salary A.P.T. VII plus London Weighting and an essential user car allowance. Housing accommodation is not available. Canvassing in any form will disqualify. Forms of application and list of duties can be obtained from the Town Clerk, Town Hall, Edmonton, N.9, and applications must be received by him before 5 p.m. on 6th September, 1954. [8213

COUNTY BOROUGH OF WEST HAM.

APPLICATIONS invited for following appointments in Borough Architect & Planning Officer's Department:—

1. CHIEF ASSISTANT, TOWN PLANNING—A.P.T. Grade X (£920×£40×£40×£50—£1,050 plus L.A.) Applicants to be A.R.I.B.A., A.M.T.P.I. and successful applicant required to take charge of Town Planning Section.
2. SENIOR ASSISTANT, TOWN PLANNING—A.P.T. Grade VIII (£785×£25—£860 plus L.A.). Applicants to be A.R.I.B.A., A.M.T.P.I.
3. SENIOR ASSISTANT, TOWN PLANNING—A.P.T. Grade VII (£735×£25—£810 plus L.A.). Applicants to be A.R.I.B.A. and preference given to those with planning qualification.

Forms of application, returnable by 23rd Aug., 1954, from Thomas E. North, O.B.E., F.R.I.B.A., Dist. T.P., Borough Architect & Planning Officer, 70, West Ham Lane, Stratford, E.15. [8216

APPOINTMENTS—contd.

BINGLEY URBAN DISTRICT COUNCIL.

APPOINTMENT OF CHIEF ARCHITECTURAL ASSISTANT IN THE SURVEYOR AND ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the following permanent appointment on the Surveyor and Architect's Staff.

CHIEF ARCHITECTURAL ASSISTANT, Grade A.P.T. 6—£695, rising by three annual increments to £760.

Candidates for the post should have had considerable training and experience in housing design and development, and general architectural work. Preference will be given to candidates who have passed the final examination of the Royal Institute of British Architects.

The appointment will be terminable by one month's notice on either side and will be subject to the provisions of the Local Government Superannuation Act, 1937.

Applications, stating age, qualifications, training and experience and details of past and present appointments, accompanied by copies of two recent testimonials, or the names and addresses of two referees, should be forwarded, endorsed "Chief Architectural Assistant," to the undersigned before Tuesday, 17th August, 1954.

The Council is unable to provide housing accommodation.

F. M. DUNWELL,
Clerk of the Council.

Town Hall,
Bingley.
30th July, 1954. [8217

ARCHITECTS FOR NEW ZEALAND.

APPLICATIONS are invited from registered Architects up to 45 years of age for positions in the Architectural Division of the Ministry of Works, New Zealand. Vacancies exist at Auckland, Hamilton, Wanganui, Wellington, Christchurch and Dunedin. The work of the Architectural Division covers the design and construction of buildings, including the preparation of sketch plans, working drawings and specifications for such buildings as hospitals, schools, office and public buildings, hostels, flats and houses. Salaries on the Professional scale range from £(N.Z.)645 to £(N.Z.)1,130, plus a General Wage Increase of £(N.Z.)62 8s per annum. Commencing rate is at any point on the scale according to experience since qualification and advancement within the scale depends on merit. The Architectural Division has more senior posts on establishment, including District Architects at the six locations stated above at £(N.Z.)1,340 and £(N.Z.)1,390, all plus £(N.Z.)62 8s per annum.

Applications will be considered only from registered Architects (A.R.I.B.A. or equivalent).

Qualified Architects interested in positions in the Ministry of Works, New Zealand, should write for an application form to the:—

High Commissioner for New Zealand, 415, Strand, London, W.C.2, quoting Reference No. 3/74/105 and mentioning this paper.

Completed applications, in duplicate, accompanied by copies only of two recent testimonials, to be lodged not later than September 11, 1954. [8219

BOROUGH OF WILLESDEN.

APPOINTMENT OF ARCHITECTURAL ASSISTANTS.
Grade A.P.T. VI (£696-£760 per annum).
Grade A.P.T. VA (£650-£710 per annum).
Exclusive of London Weighting.

APPLICATIONS are invited for the above appointments on the permanent staff of the Borough Engineer and Surveyor's Department from suitably experienced persons who are Associates of the Royal Institute of British Architects or who hold an equivalent qualification.

The commencing salary in each case will be fixed in accordance with the qualifiactions and experience of the successful candidates.

The Council is unable to assist with housing.

Full details and forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Dyne Road, Kilburn, N.W.6, and should be returned to the undersigned not later than 10 a.m. on Monday, August 30.

R. S. FORSTER,
Town Clerk.

Town Hall,
Dyne Road,
Kilburn.
N.W.6.
August, 1954. [8238

APPOINTMENTS—contd.

BOROUGH OF CONGLETON.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for the above appointment in the Department of the Borough Engineer and Surveyor, at a salary in accordance with Grade V of the A.P.T. Division of the National Scale of Salaries, viz., £620 per annum rising by three annual increments to £670 per annum.

Candidates should be Registered Architects, preferably with previous experience in the preparation of designs, working drawings and specifications in connection with Municipal Housing Schemes.

The appointment, which will be subject to the conditions of service of the National Joint Council, to the provisions of the Local Government Superannuation Act, 1937, and to the successful candidate passing a satisfactory medical examination will be determinable by one month's notice on either side.

Housing accommodation will be made available if necessary.

Canvassing, either directly or indirectly, will be a disqualification, and candidates must disclose in writing whether to their knowledge they are related to any member of the Council or to the holder of any Senior Office under the Council.

Applications endorsed "Architectural Assistant," stating age, qualifications and experience, and accompanied by copies of three recent testimonials, must reach the undersigned not later than Monday, 30th August, 1954.

JACK MEE,
Town Clerk.

Town Clerk's Office,
CONGLETON. [8223

NATIONAL COAL BOARD.

NORTH EASTERN DIVISION.

APPLICATIONS are invited for the following appointments to the staff of the Divisional Chief Architect at Denaby Main, near Doncaster:—

ARCHITECTURAL ASSISTANTS, Grade I. (£525×£25—£650 p.a.)

Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects and have had not less than three years' practical experience and should be able to prepare Sketch Plans and Working Drawings and have a sound knowledge of Building Construction.

The work in this office consists chiefly of Pithead Baths, Canteens, Medical Centres, Offices, Laboratories, etc.

The point of entry in the above scale will depend on qualifications and experience.

The appointment is subject to the Board's Superannuation Scheme.

Application forms may be obtained from the Divisional Chief Architect, J. A. Dempster, F.R.I.B.A., P.O. Box No. 4, Denaby Main, near Doncaster, and should be returned not later than 28th August, 1954. [8226

DERBY CORPORATION.

BOROUGH ARCHITECT'S DEPARTMENT.

(a) SENIOR QUANTITY SURVEYOR, Grade VI. Salary £695-£760, commencing at £695 per annum. Candidates should have had considerable experience in taking off quantities for large building projects and in the settlement of final accounts. Preference will be given to qualified members of the Royal Institution of Chartered Surveyors (Quantities Section).

(b) CLERK OF WORKS, Grade III. Salary £550-£595, commencing at £550 per annum. Applicants should have a sound knowledge of all building trades.

Permanent staff appointments, subject to one month's notice and pensionable subject to medical examination. National Conditions of Service.

Forms of application obtainable from and to be returned to the Borough Architect, The Council House, Derby, not later than 30th August, 1954.

G. H. EMLYN JONES,
Town Clerk.
[8232

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

VACANCIES for ARCHITECTS, Grade III (up to £892 10s), and ARCHITECTURAL ASSISTANTS (up to £739 10s) in Schools and Housing Divisions.

Particulars and application forms from Architect (AR/EK/A/3), County Hall, S.E.1. (1058.) [0146

APPOINTMENTS—contd.

BOROUGH OF STRETFORD.

APPOINTMENT OF ARCHITECTURAL ASSISTANT (PERMANENT).

APPLICATIONS are invited for the position of ARCHITECTURAL ASSISTANT in the Borough Engineer and Surveyor's Department at a salary in accordance with Grades IV-V of the National Scales of Salary, viz., £580 with increments to £670.

Candidates should be experienced in the design and construction of all types of municipal buildings, including housing schemes, blocks of flats, public buildings (including baths), etc., and be capable of preparing Specifications and Quantities, setting out, measuring up and settling accounts. They should have qualifications equivalent to the intermediate examination of the R.I.B.A.

The appointment will be subject to one month's notice on either side, the National Scheme of Conditions of Service and to the passing of a medical examination. The appointment is a whole-time one and work in connection with a private practice will be prohibited.

Application forms may be obtained from the Borough Engineer, Town Hall, Stretford, to whom they should be returned not later than 21st August, 1954. C. TREWAVAS, Town Clerk.

Town Hall,
STRETFORD.
4th August, 1954. [8225

ARCHITECT required by the LAGOS TOWN COUNCIL, NIGERIA. Salary £570×£40—£1,290 a year, plus expatriation pay of £180, rising to £270 a year. Point of entry depends on the applicant's qualifications and experience. Free passages for officer and wife. Assistance towards cost of children's passages or grant up to £150 annually for their maintenance in United Kingdom. Liberal leave on full salary after each tour of 12-24 months' duration. Outfit allowance £60. Candidates, preferably under 36 years of age, must be members of the Royal Institute of British Architects and should have some knowledge of town planning. Applicants must disclose whether they are related to any Councillor or Senior Officer of the Council. Canvassing will be treated as evidence that the applicant's merits alone are insufficient to justify appointment. Write not later than 23rd August to the Crown Agents, 4, Millbank, London, S.W.1, enclosing at least two copies of recent testimonials. State age, name in block letters, full qualifications and experience and quote M2B/40380/AF. [8228

COUNTY BOROUGH OF EAST HAM.

JUNIOR ENGINEERING ASSISTANT, Grade I, £490-£535.

TEMPORARY ESTIMATOR, Grade V, £620-£670.

SENIOR QUANTITY SURVEYOR, Grade VI, £695-£760.

SENIOR ENGINEERING ASSISTANT, Grade VI, £695-£760.

London Weighting is paid in addition. Salary in excess of the minima may be paid according to qualifications and experience.

Subsistence allowances may be granted over a reasonable period to persons appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Further details and application forms returnable by August 27, 1954, from the Town Clerk, Town Hall, East Ham, E.6. [8219

BOROUGH OF SHREWSBURY.

RE ADVERTISEMENT
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for the appointment of ARCHITECTURAL ASSISTANT on the permanent staff of the Borough Surveyor. Salary will be in accordance with A.P.T. Grade IV, £580-£625, and the person appointed will be required to pass a medical examination.

Applications stating age, qualifications and experience, together with the names and addresses of two referees, should be sent to the Borough Surveyor, Guildhall, Shrewsbury, not later than August 27, 1954. S. R. H. LOXTON, Town Clerk.

Guildhall,
Shrewsbury.
August 4, 1954. [8240

HAMPSHIRE.

APPLICATIONS are invited for the appointment of ASSISTANT QUANTITY SURVEYORS on Grade V-VI (£620-£760). Candidates must be members of the R.I.C.S. (Quantity Section) with experience in the preparation of estimates and quantities for all types of public buildings and the settlement of final accounts for building contracts.

The appointments will be terminable by three months' notice on either side, are pensionable, and subject to satisfactory medical reports. In approved cases the County Council are prepared to assist newly appointed staff to meet removal and other expenses.

Applications on forms obtainable from the County Architect, The Castle, Winchester, should be returned to him by August 31. [8241

MISCELLANEOUS SECTION

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ARCHITECTURAL APPOINTMENTS VACANT

JUNIOR architectural assistant required.—Apply, giving full details of experience and salary required, to Ivor Jones & John Bishop, 6-7, St. John's Sq., Cardiff. [8227

SENIOR assistant with experience and ability in design and/or administration, interested in future prospects, required for busy office in Midlands with varied practice.—Box 7080. [8229

ARCHITECTURAL Assistant required. Intermediate standard or above, with some office experience.—L. W. Barnard & Partners, 13, Imperial Sq., Cheltenham. [8236

ASSISTANT required of R.I.B.A. final or near-final standard; interesting and varied practice. —Write with particulars and salary required to Hickton, Madeley & Salt, AA.R.I.B.A., 24, Hatherton Rd., Walsall. [8234

SENIOR architectural draughtsman required in estate development office, N.W. London; experience in factory design and construction essential.—Write, stating age, experience and salary required, Box 7081. [8231

ARCHITECTURAL draughtsman required, capable of carrying out working drawings and specification.—Applicants should apply in writing, giving details of experience, age, etc., to Personnel Department, Albert E. Reed & Co., Ltd., Aylesford Paper Mill, Larkfield, Nr. Maidstone, Kent. [8235

SENIOR architectural assistant required by large cinema circuit in London; applicant must be about 30 years of age with design experience and extensive knowledge of modern building construction and finishes; the appointment is permanent and pension scheme, canteen, 5-day week and other amenities are available.—Write stating age, details of training and experience and salary required to Box 7061. [8224

CO-OPERATIVE Wholesale Society, Ltd., Architect's Department, London. Applications are invited for the following appointments: Assistant Architects of Intermediate and Final R.I.B.A. standard (salary range—£320-£680 per annum, according to age and experience) for work on varied and interesting projects. The appointments are permanent and pensionable and offer prospects of up-grading. Applications, stating age, experience, qualifications and salary required, to W. J. Reed, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 99, Leman St., London, E.1. [8170

SITUATIONS VACANT

WEST End architects have two vacancies starting at £700 p.a. to work on schools, etc.—Box 7107. [8237

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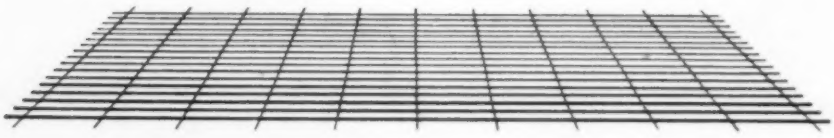

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